



Breeding Landbird Monitoring in the Northeast Temperate Network

2013 Summary Report

Natural Resource Data Series NPS/NETN/NRDS —2014/630



ON THE COVER

Hermit thrushes (*Catharus guttatus*) are some of the earliest spring migrants to arrive in Northeastern forests.
Photograph by: Kelly Colgan Azar

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* Indicates volunteers who conducted surveys in 2013.

Background and Introduction

The National Park Service (NPS) Northeast Temperate Network (NETN) is tasked with monitoring a suite of representative natural resource indicators, called vital signs, for 12 parks in seven northeastern states plus the Appalachian National Scenic Trail (APPA). Breeding birds were chosen as one of the NETN vital signs because they are a reliable indicator of ecological integrity and they are a high profile taxonomic group. Many bird species are easily detected and identified, and well-established survey methods are available. This report covers breeding landbird monitoring in 11 NETN parks (Figure 1). Difficult logistics prevent this protocol from being feasible for the Boston Harbor Islands National Recreation Area and APPA (Faccio et al. 2013).

The Northeast Temperate Network and the Vermont Center for Ecostudies (VCE) began monitoring breeding landbirds in most NETN parks in 2006, using volunteer birders to conduct point count surveys. On a broad scale, the 11 monitored parks are located within the temperate deciduous forest biome. At a finer scale, the parks range across four Bird Conservation Regions (BCRs) (Figure 1). Bird Conservation Regions, developed by the North American Bird Conservation Initiative (NABCI 2000), are ecologically defined units that provide a consistent spatial framework for bird conservation across North American landscapes. By employing broad scale units that are ecologically meaningful to bird populations, conservation efforts can be tailored to support groups of species throughout the heart of their ranges. Bird Conservation Regions are being used to help assign “conservation priority” scores for bird species. Each BCR has its own unique list of “priority” species ranked by conservation importance according to a standardized set of criteria.

This report summarizes data collected from 2006 through 2013. As we accumulate more years of data, we anticipate that the annual report will expand to incorporate more data interpretation. Readers are cautioned to treat the ecological integrity assessment results as provisional for two reasons: 1) the assessment assumes that the bird community is completely characterized, and if a subset of species are rare and hard to detect, the results could be biased; and 2) many NETN parks have a primary mandate to manage for the historical landscape rather than biological integrity or ecosystem structure and function; thus, management action may not always be warranted when guilds are rated “significant concern.” This year, with 8 years of survey data at most parks, the ecological integrity assessment results were compared over two time periods, 2006-2009 and 2010-2013. In the future, we plan to work with park managers to produce a parallel assessment based on park management goals.

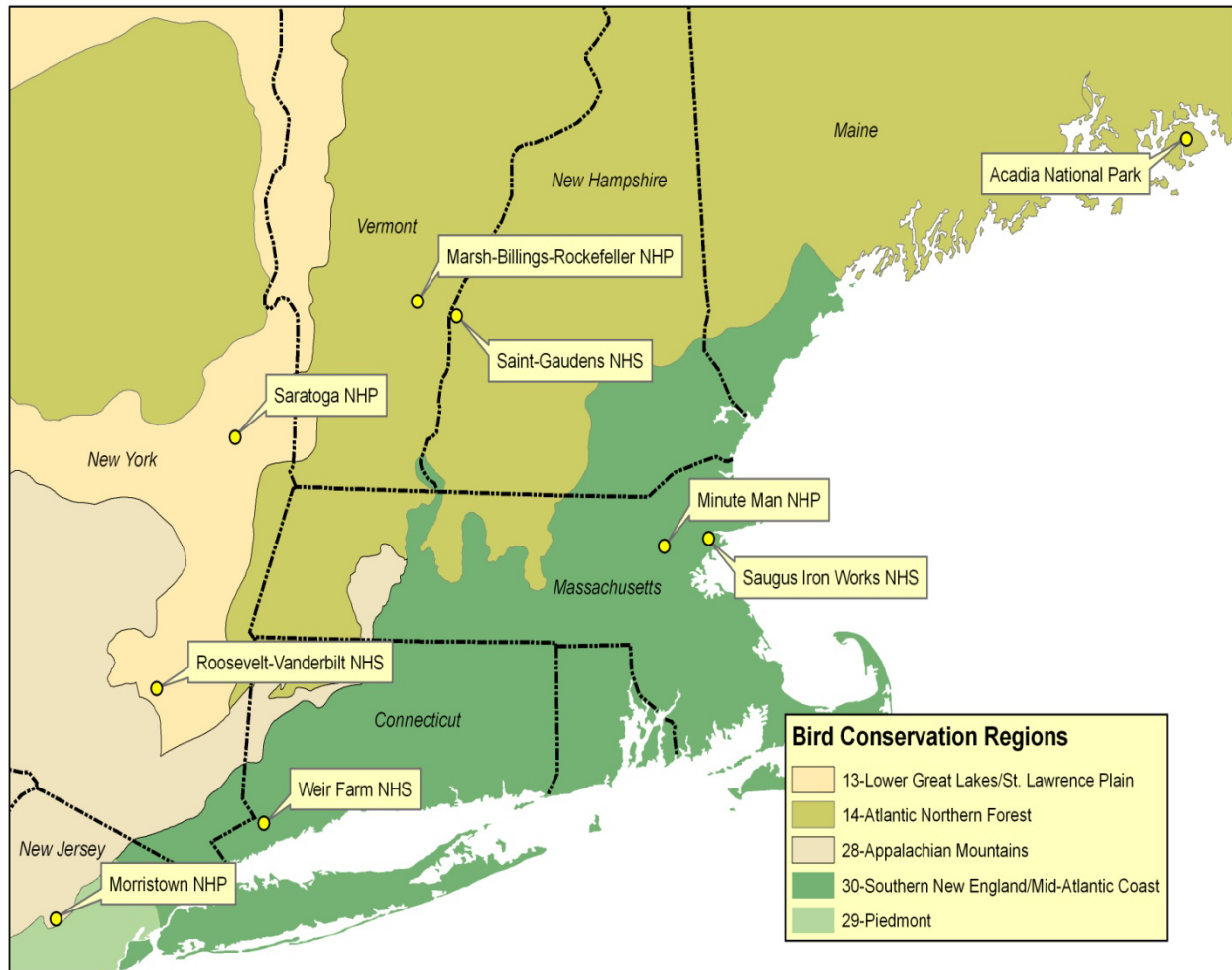


Figure 1. Northeast Temperate Network parks where the breeding bird monitoring protocol is being implemented and their associated Bird Conservation Regions. Roosevelt-Vanderbilt National Historic Sites includes Eleanor Roosevelt, Home of Franklin D. Roosevelt, and Vanderbilt Mansion National Historic Sites.

Methods

Depending on size and habitat, each park contains one or more study sites and each study site contains between three and 12 point count stations, each separated by approximately 250 m. Study sites were established in the dominant, mature forest cover types of each park, with individual points more than 50 m from forest edges. Additional sites at Saratoga NHP and Minute Man NHP were established to survey managed grassland habitat. Full details of the sampling design and methods for establishing sites can be found in the most recent version of the monitoring protocol (Faccio et al. 2013). Volunteer birders visit each station at least once per year between late May and June, except for parks with fewer than 10 point count stations (Saint-Gaudens NHS, Saugus Iron Works NHS, and Weir Farm NHS) which are visited at least twice. Volunteers record the species of each individual they detect during 10-minute point counts, the time during the count when each individual is first detected, and the distance band within which each individual was first detected (0-10 m, 10-25 m, 25-50 m, and > 50 m). The data are recorded on field cards and input into the United States Geological Survey (USGS) Point Count Database.

Birders are recruited through local birding groups, listservs, word of mouth, and park staff. Each volunteer takes a bird identification quiz on the Vermont Center for Ecostudies website, and receives a Volunteer Training Manual with detailed instructions and procedures. Volunteers are expected to spend time practicing distance estimation skills and familiarizing themselves with their route prior to conducting their survey. NETN is working with partners to develop a birder certification website that provides training tools and testing in visual and auditory bird identification. Volunteer birder skill is evaluated by the project leader and data from poor observers are excluded from analyses and reporting. At this point, only data from a single survey route from 2006 at Saratoga National Historical Park has been excluded.

Volunteer recruitment and retention has varied widely by park. To date, an average of 81% of the 29 active study sites have been surveyed (at least partially) each year network-wide, with five parks (Roosevelt-Vanderbilt NHS [ROVA], Marsh-Billings-Rockefeller NHP [MABI], Minute Man NHP [MIMA], Saint-Gaudens NHS [SAGA] and Saugus Iron Works [SAIR]) achieving 88% coverage or better, and two parks (Morristown NHP [MORR] and Saratoga NHP [SARA]) achieving 75% and 76% coverage, respectively (Table 1). Acadia NP (ACAD) and Weir Farm NHS (WEFA) have had volunteer recruitment and/or retention problems, resulting in a coverage rate of just 63% at each park. In 2013, only two study sites were not surveyed, resulting in the project's highest coverage rate (93%) to date. Volunteer recruitment for one or two potentially vacant routes during the 2014 season is ongoing, and we are hopeful that all parks will have 100% coverage.

Data summaries were produced for each park (and each site when a park has more than one) using a database developed by the Northeast Temperate Network. The summaries include species detected and abundance for each year, as well as species richness and Shannon diversity. To facilitate comparisons across years and between parks and sites, if a site is surveyed multiple times in a year then only the data from the first survey are used for the data summaries (relative abundance figures, Appendix A, and Appendix B). Detections of additional species from later surveys are noted in the text, as is the total number of species and individuals detected through

the full survey effort. The ecological integrity assessments use all species detected, regardless of whether the detection is in the first survey.

Beginning with the 2012 report, we have included the Partner's in Flight (PIF) Priority Species codes in the tables in Appendices A and B. If these tables are compared with those from previous years, you will note an increase in the number of PIF Priority species designated for each park/site. This is due to the fact that we are now including "stewardship" species (defined by PIF as species with a high proportion of their population or range within an ecological planning area; Panjabi et al. 2012), in addition to those of regional or continental concern, as well as relatively common species that are exhibiting significant population declines. For more information about the PIF Species Assessment, go to <http://pif.rmbo.org/>.

Table 1. Number of surveys conducted at each study site annually, 2006-2013. “NA” indicates sites that were not established during a given year. Total coverage is the proportion of years each site (or park) was at least partially surveyed.

Park/Study Site (no. of point counts)	2006	2007	2008	2009	2010	2011	2012	2013	Total Coverage (%)
Acadia NP (ACAD)									63
Schoodic (n=6)	NA	1	0	0	2	2	0	2	57
Giant Slide Trail (n=10)	NA	1 ¹	1	1	0	1 ¹	0	0	57
Seal Cove Center (n=6)	NA	1	2	2	2	2	2	2	100
Seal Cove East (n=7)	NA	1	2	2	2	2	2	2	100
Seal Cove West (n=6)	NA	0	0	0	0	1	2	1	43
Witch Hole Pond (n=9)	NA	0	0	1	0	1	1	1	57
Youngs Mtn (n=7)	NA	0	0	1	0	0	0	1	29
Roosevelt-Vanderbilt NHS (ROVA)									96
ELRO (n=11)	1 ¹	1	1	1	1	1	1	1	100
HOFR (n=12)	1	1	1	0	1	1	1	1	88
VAMA (n=7)	1	1	1	1	1	1	1	1	100
Marsh-Billings-Rockefeller NHP (MABI)									100
East (n=10)	1	1	1	1	1	1	1	1	100
Northwest (n=10)	1	1	2 ¹	1	1	1	1	1	100
South (n=5)	1	2	1	1	1	2	2	2	100
Minute Man NHP (MIMA)									96
Hartwell Tavern (n=7)	1	1	1	1	1	1	1	1	100
Miriam's Corner (n=8)	1	1	1	1	0	1	1	1	88
The Bluffs (n=8)	1	2	2	2	1	3 ²	2	2	100
Battle Road (n=6)	NA	NA	NA	NA	NA	NA	2	2	100
Morristown NHP (MORR)									75
Mt. Kemble (n=10)	0	0	2	2	1	1	0	2	63
Primrose Brook (n=10)	1	1	2	2	1	0	2	1	88
Soldiers Huts (n=9)	1	1	0	0	1	2	1	1	75
Saint-Gaudens NHS (SAGA) (n=8)	0	1 ³	2	2	2	2	2	2	88
Saugus Iron Works NHS (SAIR) (n=3)	NA	NA	1 ³	3	2	2	2	2	100
Saratoga NHP (SARA)									76
Bemis Heights (n=6)	NA	0	1	1	1	1 ¹	NA ⁴	NA ⁴	80
Burgoyne's Headquarters (n=5)	1	0	1	1	1	1	1	1	88
Freeman Farm (n=10)	1	1	1	1	1	1	1	1	100
Middle Ravine (n=10)	NA	1	1	0	0	0	0	1 ¹	43
Neilson Farm (n=10)	1	0	1	1	1	1	1	1	88
Wilkinson Trail (n=10)	0	0	1	1	1	0	1 ⁵	0	50
Northwest (n=8)	NA	NA	NA	NA	NA	NA	1	1	100
Weir Farm NHS (WEFA) (n=5)	2	0	0	2	2	0	2	2	63
Annual Coverage (%)	83	67	79	82	79	82	83	93	81
Total Surveys	16	20	29	32	28	32	34	37	

1 Partial survey. 9 points at ACAD Giant Slide Trail (2007 and 2011), 6 at ELRO (2006), 5 at MABI NW (2008), 2 at SARA Bemis Heights (2011), and 8 at SARA Middle Ravine (2013).

2 Includes simultaneous quality control survey by project manager.

3 Replicate survey was not conducted.

4 Survey route discontinued in 2012 due to hazardous conditions, and a new route (Northwest) established.

5 Survey conducted but data not received in time to include in 2012 Summary Report.

Avian Ecological Integrity Assessment

This report includes an assessment of the ecological integrity of the forest breeding bird community at each park. There is a separate assessment of the grassland bird community at Saratoga National Historical Park (NHP), and at a newly established site at Minute Man NHP, first surveyed in 2012. This year, instead of combining data from all survey years into a single assessment, the data were split into two time periods, 2006-2009 and 2010-2013, in order to compare changes over time.

The ecological integrity assessments are based on an assemblage of behavioral and physiological response guilds (i.e., groups of species that require similar habitat, food, or other elements for survival). Over time, they will help elucidate changes in a broader, landscape context and indicate the direction that breeding bird habitat at the park may be moving along a disturbance gradient from “highly disturbed” or “urban,” to “pristine” or “natural.”

The forest breeding bird guild-based avian ecological integrity assessment consists of 13 guilds in three ecological integrity categories, with each guild being broadly categorized as “specialist” or “generalist.” A specialist is a species with a narrow range of habitat tolerances, or one that exhibits a low intrinsic rate of population growth. The presence of a variety of specialist guilds indicates a high-integrity habitat condition associated with large areas of mature forest, while a preponderance of generalist guilds indicates a low-integrity condition. The integrity categories are compositional (indicating species diversity), functional (highlighting ecological processes), and structural (related to the presence of important physical elements, like snags and a shrub layer).

To calculate the avian ecological integrity assessment, species detected at a site or park are first assigned to guilds. Some species may be assigned to more than one guild, depending on their life history traits. The proportional species richness of each guild is then calculated by dividing the number of guild members detected by the total number of species detected. For forest breeding birds, this value is then used to determine a rank of Good, Caution, or Significant Concern based on the proportional species richness thresholds listed in Table 2. “Good” represents acceptable or desired conditions, “Caution” indicates a problem may exist, and “Significant concern” indicates undesired conditions that may be in need of management action. For grasslands at Saratoga and Minute Man NHPs, we have also developed a grassland avian ecological integrity assessment, based on a small number of relevant guilds (Table 3).

The thresholds and ranks for forest breeding birds are largely based on those derived by O’Connell et al. (2000) for birds in forested habitats in the central Appalachians, and from those derived by Glennon and Porter (2005) for New York’s Adirondack State Park. The thresholds and ranks for grassland birds were derived from Browder et al. (2002) and Coppedge et al. (2006). This is a first attempt at applying this assessment; threshold values may need to be adjusted by bioregion, forest type, or BCR, and may also be refined over time. In addition, within any given year some guild members are likely missed during surveys, so assessment results based on only one year of data may not be accurate. For that reason, assessments are based on at least 4 years of data for each park. Where more than 3 years of data were used, it is more likely that the assessment results provide an accurate picture of the ecological health of the forest bird community. We recognize that the assessment is based on ecological criteria, and that

park management goals may not seek to attain “ecological integrity.” A management assessment could be developed by park staff and NETN scientists that would reflect progress towards avian and ecological management goals for individual parks.

Table 2. Forest Avian Ecological Integrity thresholds for 13 response guilds (based on O’Connell et al. 2000, and Glennon and Porter 2005). Percentages are proportional species richness

Biotic Integrity Element	Response Guild Metric	Ratings (% Species Richness)		
		Good	Caution	Significant Concern
Compositional:	Exotic Species	0%	0.5 - 7%	> 7%
	Nest Predator/Brood Parasite	< 10%	10 - 15%	> 15%
	Resident	< 28%	28 - 41%	> 41%
	Single-Brooded	> 68%	50 - 68%	< 50%
Functional:	Bark Prober	> 11%	4 - 11%	< 4%
	Ground Gleaner	> 9%	4 - 9%	< 4%
	High Canopy Forager	> 12%	7 - 12%	< 7%
	Low Canopy Forager	> 22%	14 - 22%	< 14%
	Omnivore	< 30%	30 - 50%	> 50%
Structural:	Canopy Nester	> 35%	29 - 35%	< 29%
	Forest-ground Nester	> 18%	5 - 18%	< 5%
	Interior Forest Obligate	> 35%	10 - 35%	< 10%
	Shrub Nester	< 18%	18 - 24%	> 24%

Table 3. Grassland Avian Ecological Integrity thresholds for six response guilds (based on Browder et al. 2002, and Coppedge et al. 2006). Percentages are proportional species richness.

Response Guild Metric	Ratings (% Species Richness)		
	Good	Caution	Significant Concern
Edge generalist species	< 35%	35 - 70%	> 70%
Shrub-dependent species	< 10%	10 - 25%	> 25%
Grassland obligate species	> 10%	5 - 10%	< 5%
Exotic species	< 0.1%	0.1 - 3%	> 3%
Proportion of PIF Priority Grassland Obligate Species for:			
BCR 13 (# detected/8)	> 70%	50 - 70%	< 50%
BCR 30 (# detected/5)			
Proportion of PIF Priority Shrub-dependent Species for:			
BCR 13 and 30 (# detected/7)	> 75%	50 - 75%	< 50%

In 2011, the avian ecological integrity assessments were modified to more closely match the methods of O’Connell et al. (2000). Specifically, we limited both assessments to five groups of birds (perching birds or passerines, woodpeckers, cuckoos, swifts and hummingbirds, and

doves). The only exceptions are American Kestrel and Northern Harrier, two grassland-obligate raptors that are now included in the grassland obligate guild for the grassland assessment. This helps ensure that the species included in the assessments are readily detected by point count surveys and are potential breeders in forested or grassland habitat. In addition, we limited the assessments to species that are assigned to guilds for the specific assessment type; interior forest

birds detected on grassland point counts will not count in the species total (used to estimate proportional species richness) for that site.

Additionally, as part of our review of the grassland assessment, 16 species were added to the “Edge Generalist” grassland guild: American Woodcock, Black-billed Cuckoo, Black-capped Chickadee, Blue-gray Gnatcatcher, Blue Jay, Common Grackle, Great Crested Flycatcher, Gray Catbird, Northern Bobwhite, Northern Cardinal, Red-winged Blackbird, Ruby-Throated Hummingbird, Tufted Titmouse, Yellow-billed Cuckoo, Yellow-shafted Flicker, and Yellow-throated Vireo; while Alder Flycatcher and Willow Flycatcher were added to the “Shrub-dependent” grassland guild. After reviewing the thresholds for both assessments in 2012, we revised the threshold values of the “Edge Generalist” grassland guild due to the number of species that were added to that guild.

Beginning with the 2012 annual report, the grassland assessment includes two additional guilds: “Partners in Flight (PIF) Priority Grassland Obligate Species” and “PIF Priority Shrub-dependent Species.” These metrics evaluate the proportion of grassland and shrub-dependent species detected on grassland surveys that are listed as conservation priorities for BCRs 13 and 30 (see Fig. 1). Detecting a high proportion of shrub-dependent species on grassland surveys is not generally desirable (hence the threshold ratings for the “shrub-dependent” guild in Table 3). However, because seven of the 13 species (54%) included in the shrub-dependent guild are of high conservation concern in the region, there is value in providing habitat for these rare and/or declining species.

For more information about the Avian Ecological Integrity Assessment, as well as project methodologies, sampling scheme, and more, see the Breeding Landbird Monitoring Protocol (Faccio et al. 2013), available on the Integrated Resource Management Application (IRMA) website at: <https://irma.nps.gov/App/Reference/Profile/2193043?lnv=true>. The Google Earth Park Maps webpage (accessible through the leftmost suite of menu choices on NETN’s web site: <http://science.nature.nps.gov/im/units/netn/index.cfm>) also contains bird point count stations for all participating network park units.

Results by Park

Acadia National Park (Maine)

A total of 51 point count stations at seven study sites were established in 2007 at Acadia National Park (ACAD) in Maine (Figure 2). These sites were chosen to be within 1.5 km of a road, with slopes less than 30% and in blocks of forested habitat greater than 100 ha. Although we had recruitment and volunteer retention issues in the early years at ACAD, survey coverage has improved in recent years, bringing the park-wide coverage rate to 63% (see Table 1 for a summary of survey coverage by year). During 2013, all but one site (Giant Slide Trail) was surveyed.

During 2013, observers conducted a total of 66 point counts, detecting a total of 578 birds representing 53 species, including six species detected for the first time (Wood Duck, Osprey, Belted Kingfisher, Black-billed Cuckoo, White-breasted Nuthatch, and Canada Warbler). A total of 75 species have been recorded over the 7 years of monitoring, including a Yellow-Bellied Sapsucker and Black-billed Cuckoo which were detected only on repeat site visits to Seal Cove East.

Average abundance during the first site visit increased from 7.5 birds per point in 2012 to 9.0 birds per point in 2013, which is slightly below the 7-year average of 9.43 birds per point (Appendix A). Along with an increase in number of individuals in 2013, species richness increased from 43 to 50 species detected during the first round of surveys, the highest since surveys began in 2007. Five species of regional or USA/Canada conservation concern were detected during the 2013 surveys (Belted Kingfisher, Eastern Wood-Pewee, Veery, Canada Warbler, and Scarlet Tanager). In addition, two relatively common species exhibiting significant declines across the region were detected (Ruffed Grouse and Pine Siskin). Appendices A and B detail the species and relative abundances found throughout the park and at each site during the first survey of each year, plus additional summary statistics.

Of the 10 most abundant species detected at all ACAD sites combined across all years, the relative abundances of four (Blue-headed Vireo, Red-breasted Nuthatch, Black-throated Green Warbler, and Dark-eyed Junco) decreased from 2012, and the relative abundances of six of the 10 species were below the 7-year average (Figure 3, Appendix A).

The combined (all sites) forest avian ecological integrity assessment comparing the first 3 years of surveys at Acadia National Park (2007-2009) to the last 4 years (2010-2013), resulted in nine categories with no change, and four showing improvement (Table 4). Three categories ranked as “Caution” in the early years (High Canopy Forager, Omnivore, and Canopy Nester) improved to “Good,” while the Shrub Nester guild improved from “Significant Concern” to “Caution,” suggesting that the forest bird community at ACAD appears to be doing well. The assessment has also been calculated for each study site (with all survey years combined), and these results are provided in Appendix C.

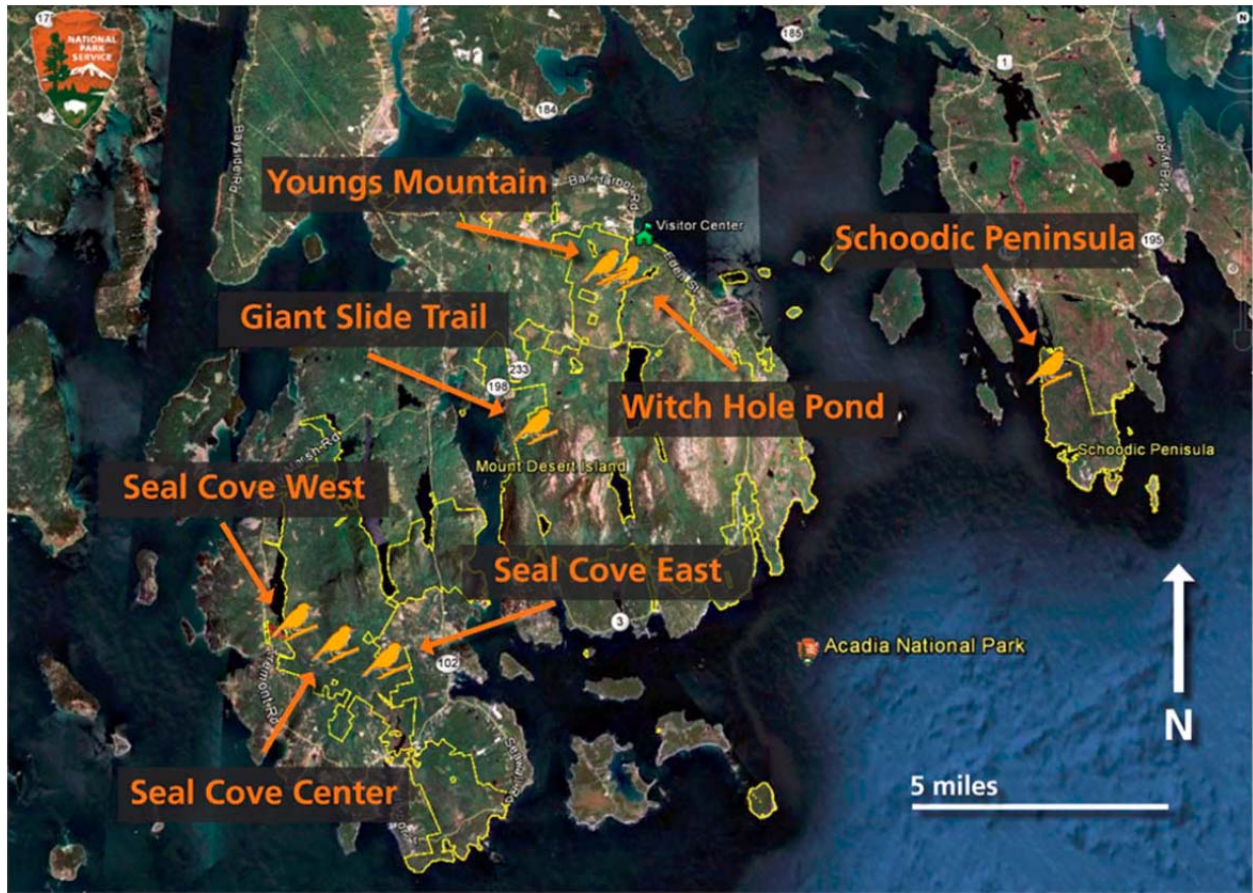


Figure 2. Point count stations at Acadia National Park, Mt. Desert Island and Schoodic Peninsula. Google Earth image.

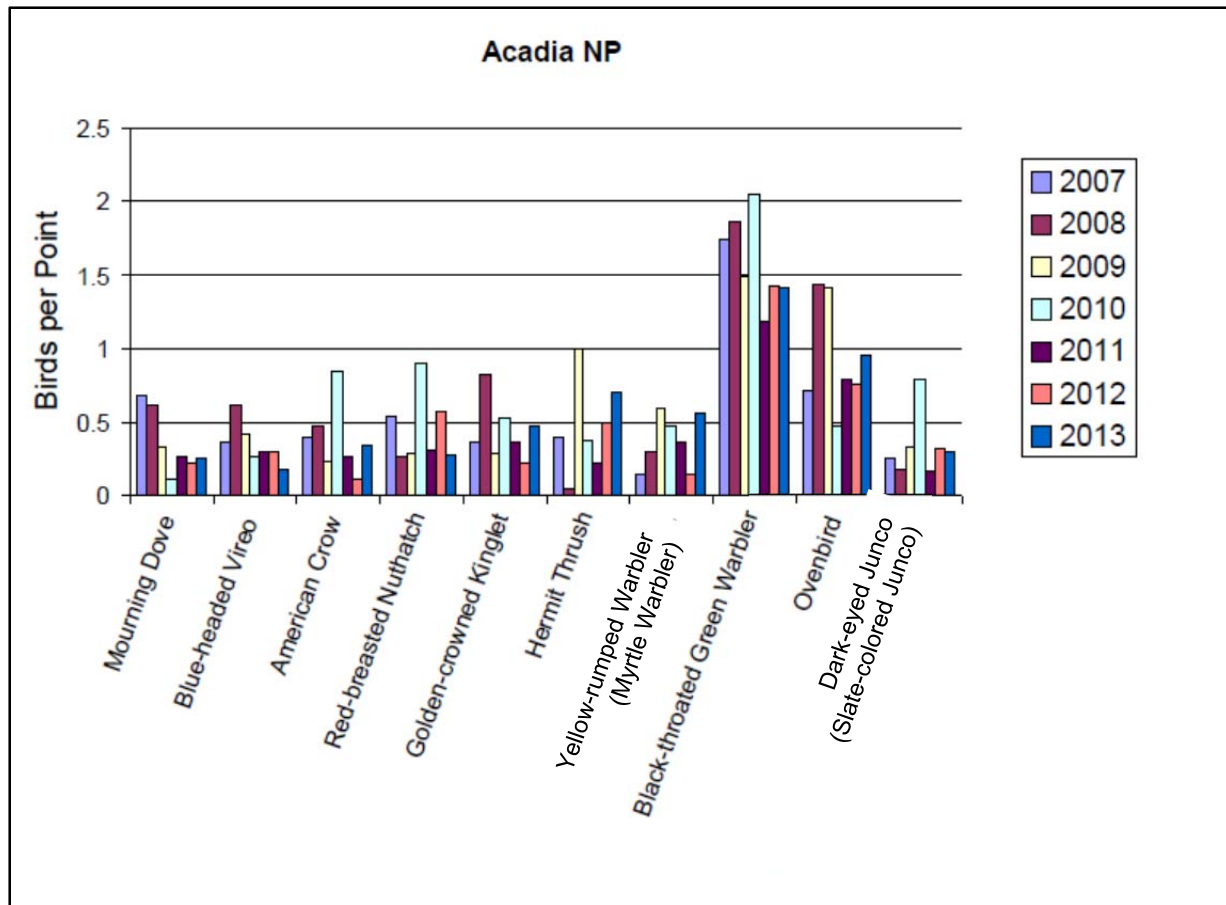


Figure 3. Relative abundance of the 10 most common species detected at Acadia National Park, 2007-2013; Mt. Desert Island and Schoodic Peninsula sites.

Table 4. Combined (all sites) Forest Avian Ecological Integrity Assessment for Acadia National Park, for two time periods, 2007-2009 and 2010-2013.

Integrity Element: Compositional					
	2007-2009		2010-2013		
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change
Exotic	0%	Good	0%	Good	Same
Nest Predator / Brood Parasite	6%	Good	5%	Good	Same
Resident	29%	Caution	29%	Caution	Same
Single Brooded	58%	Caution	62%	Caution	Same
Integrity Element: Functional					
	2007-2009		2010-2013		
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change
Bark Prober	13%	Good	14%	Good	Same
Ground Gleaner	8%	Caution	7%	Caution	Same
High Canopy Forager	8%	Caution	12%	Good	Improve
Low Canopy Forager	25%	Good	24%	Good	Same
Omnivore	31%	Caution	29%	Good	Improve
Integrity Element: Structural					
	2007-2009		2010-2013		
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change
Canopy Nester	31%	Caution	40%	Good	Improve
Forest-ground Nester	15%	Caution	16%	Caution	Same
Interior Forest Obligate	40%	Good	45%	Good	Same
Shrub Nester	25%	Sig Concern	21%	Caution	Improve

Eleanor Roosevelt National Historic Site (New York)

A study site was established at Eleanor Roosevelt National Historic Site (ELRO; one of the Roosevelt-Vanderbilt National Historic Sites) in 2006 and surveyed annually (Table 1). The study site at ELRO originally consisted of six point count stations, but five additional sampling points were added for the 2007 field season, increasing the total to 11 point count stations (Figure 4).

During 2013, a total of 132 individuals representing 38 species were detected, including two species that were detected for the first time (House Wren and Blue-grey Gnatcatcher). In total, 54 species have been recorded during the 8 years, with an average abundance of 10.26 birds per point (Appendix A). In 2013, relative abundance declined from a high of 13.18 birds per point in 2012 to 12.0 birds per point, while the number of species detected (38) increased. Among the 10 most commonly detected species across all years, the relative abundances of four (Red-eyed Vireo, Tufted Titmouse, White-breasted Nuthatch, and Wood Thrush) equaled or increased from 2012 (Figure 5, Appendix A). A total of four species of regional or USA/Canada conservation concern were detected during 2013 surveys at ELRO: Eastern Wood-Pewee, Wood Thrush, Prairie Warbler, and Baltimore Oriole. A list of species, their relative abundances, and other summary statistics are provided in Appendix A. Red-eyed Vireo, Wood Thrush, and Tufted Titmouse continue to be the most commonly detected species across all years.

The forest avian ecological integrity assessment comparing the first 4 years of surveys at ELRO (2006-2009) to the last four years (2010-2013), resulted in changes to three categories, two of which declined while one improved (Table 5). Both the Single Brooded and Shrub Nester response guilds dropped from “Caution” to “Significant Concern,” although both were the result of very small changes in the proportion of birds detected in each guild (2-3%). The biggest change noted was a near doubling in the proportion of Low Canopy Foragers detected (from 9% to 16%), which improved that category from “Significant Concern” to “Caution.” Among those guilds that remained unchanged, only three were ranked as “Good” and one (Canopy Nester) was ranked as “Significant Concern”. A bird community with a low proportion of canopy nesting species, which includes birds that require a well-developed canopy layer, may be the result of the park’s location within a fragmented landscape. The decline noted among shrub nesters may be indicative of poor structural diversity within the forest, possibly due to a deer over-browse problem. However, the significant increase among low canopy foragers, which includes birds that specialize in feeding within the forest sub-canopy, may suggest that conditions in the understory are beginning to improve.

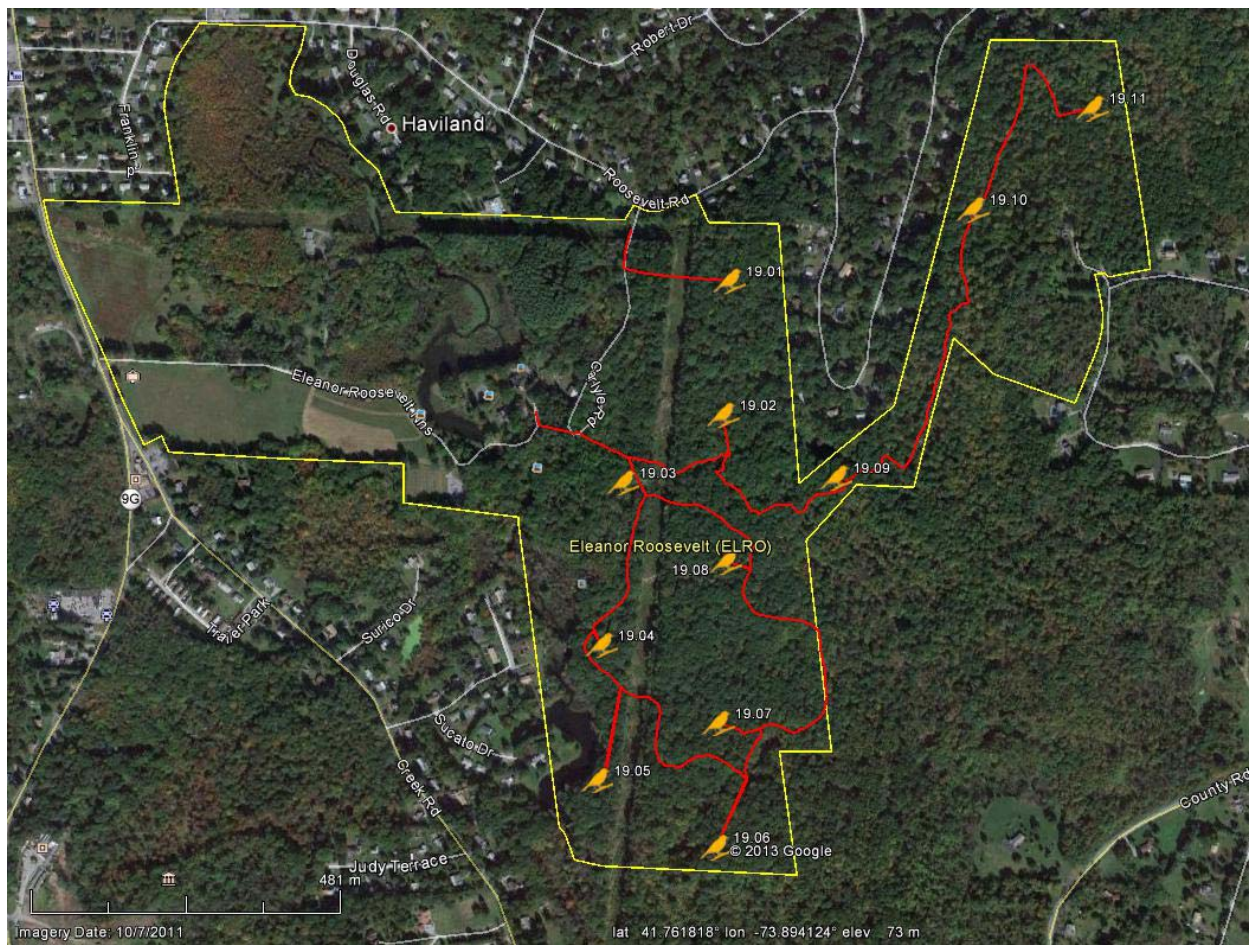


Figure 4. Point count stations at Eleanor Roosevelt National Historic Site. Google Earth image.

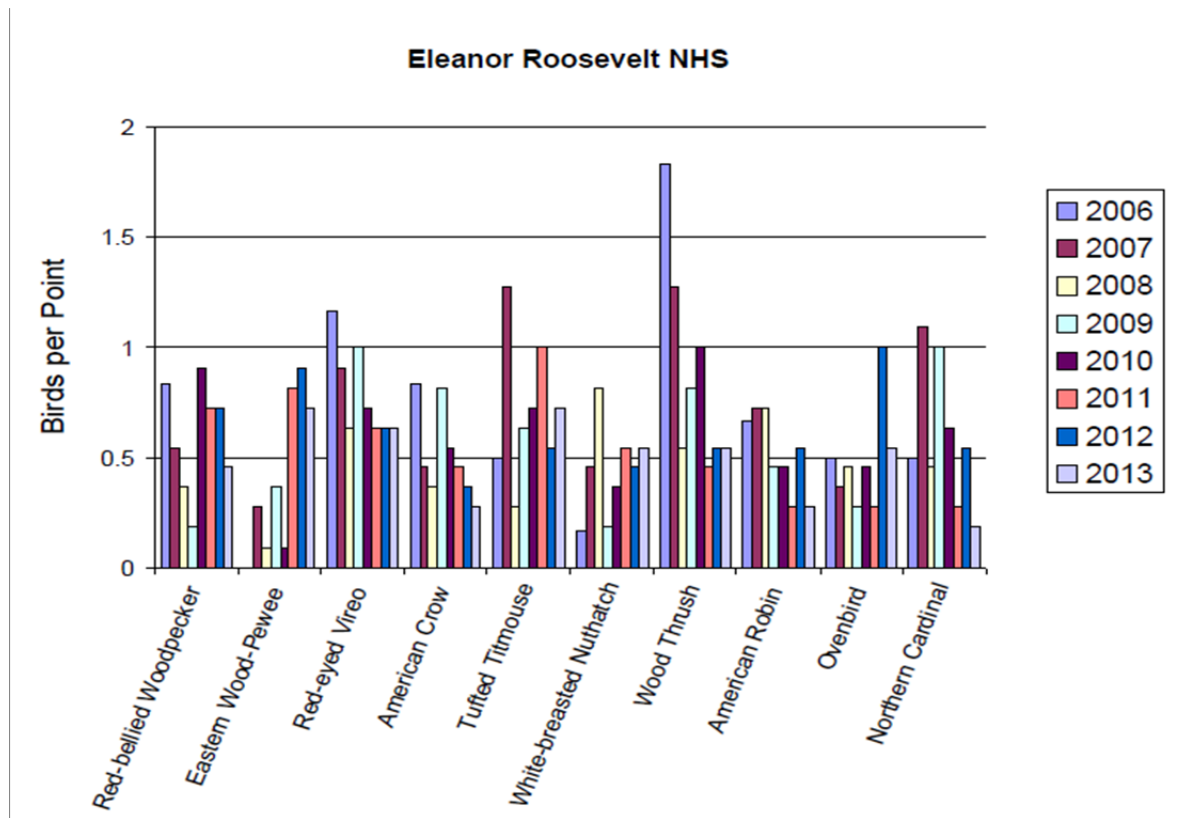


Figure 5. Relative abundance of the 10 most common species at Eleanor Roosevelt National Historic Site, 2006-2013.

Table 5. Forest Avian Ecological Integrity Assessment for Eleanor Roosevelt National Historic Site, for two time periods, 2006-2009 and 2010-2013.

Integrity Element: Compositional					
Response Guild	2006-2009 Percentage	Rating	2010-2013 Percentage	Rating	Rating Change
Exotic	0%	Good	0%	Good	Same
Nest Predator / Brood Parasite	6%	Good	7%	Good	Same
Resident	38%	Caution	34%	Caution	Same
Single Brooded	50%	Caution	48%	Sig Concern	Decline
Integrity Element: Functional					
Response Guild	2006-2009 Percentage	Rating	2010-2013 Percentage	Rating	Rating Change
Bark Prober	18%	Good	14%	Good	Same
Ground Gleaner	9%	Caution	7%	Caution	Same
High Canopy Forager	9%	Caution	9%	Caution	Same
Low Canopy Forager	9%	Sig Concern	16%	Caution	Improve
Omnivore	44%	Caution	41%	Caution	Same
Integrity Element: Structural					
Response Guild	2006-2009 Percentage	Rating	2010-2013 Percentage	Rating	Rating Change
Canopy Nester	26%	Sig Concern	25%	Sig Concern	Same
Forest-ground Nester	12%	Caution	11%	Caution	Same
Interior Forest Obligate	26%	Caution	20%	Caution	Same
Shrub Nester	24%	Caution	27%	Sig Concern	Decline

Home of Franklin D. Roosevelt National Historic Site (New York)

One study site with 12 point count stations was established at the Home of Franklin D. Roosevelt National Historic Site (HOFR; one of the Roosevelt-Vanderbilt National Historic Sites) (Figure 6) and surveyed in all years except 2009 (Table 1).

A total of 63 individual birds representing 19 species were detected in 2013, including one species (Wood Duck) which was new to the survey. In total, 47 species have been recorded, with an average abundance of 6.68 birds per point. Both relative abundance and Shannon diversity increased slightly over 2012's record low, although species richness sank to its lowest level (19; Appendix A). Among the 10 most commonly detected species across all years, the relative abundances of four (Red-bellied Woodpecker, Tufted Titmouse, American Robin, and Scarlet Tanager) increased from 2012 (Figure 7), while four of the 10 species were above the 7-year average. Only two species of regional or USA/Canada conservation concern (Wood Thrush and Baltimore Oriole) were detected in 2013. A list of species, their relative abundances, and other summary statistics are provided in Appendix A.

The forest avian ecological integrity assessment comparing the first 3 years of surveys at HOFR (2006-2008) to the last 4 years (2010-2013), resulted in changes to six categories, half of which improved and half of which declined (Table 6). The biggest percent changes were noted in the three categories that declined, the ratings of which all went from "Caution" to "Significant Concern". These included a 10% drop in the proportion of Single Brooded species detected, an 8% decline in the proportion of Low Canopy Foragers, and a 6% drop in Canopy Nesters. Among the three categories that improved, both Nest Predators/Brood Parasites and Ground Gleaners went from "Caution" to "Good", while the proportion of Resident species detected went from "Significant Concern" to "Caution". In general, while the avian ecological integrity assessment at HOFR is dominated by "Caution" and "Significant Concern" ratings, this may have more to do with landscape-scale effects of forest fragmentation and habitat loss, than it does with site-specific habitat quality within the park.

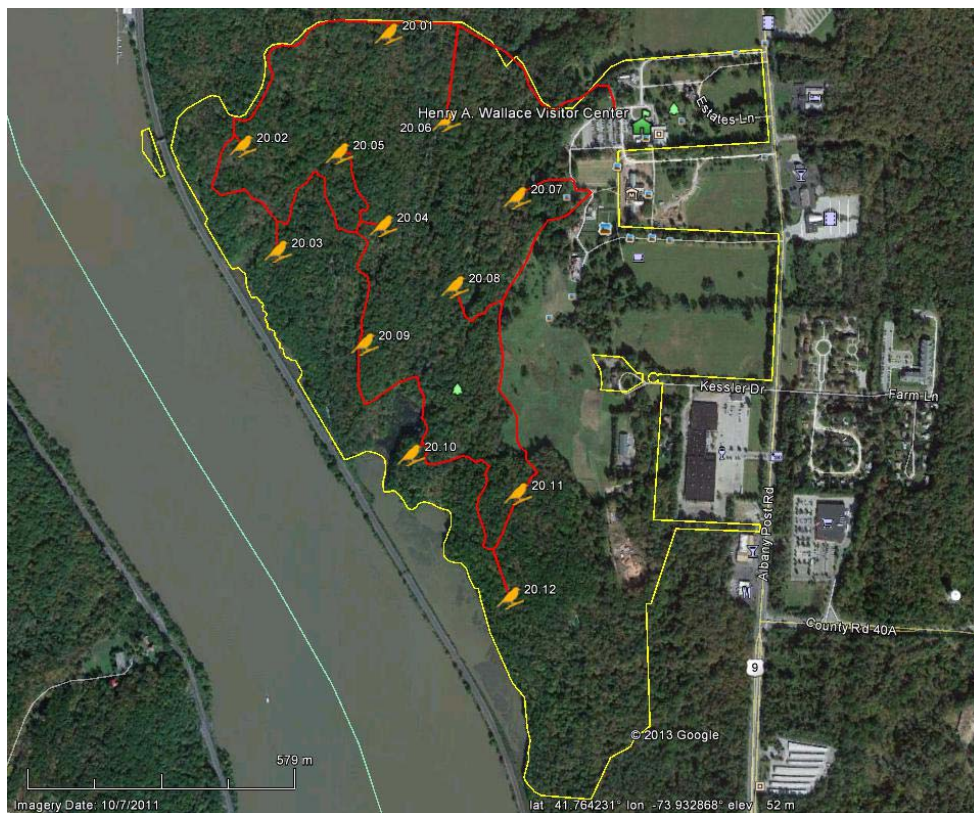


Figure 6. Point count stations at the Home of Franklin D. Roosevelt National Historic Site. Google Earth image.

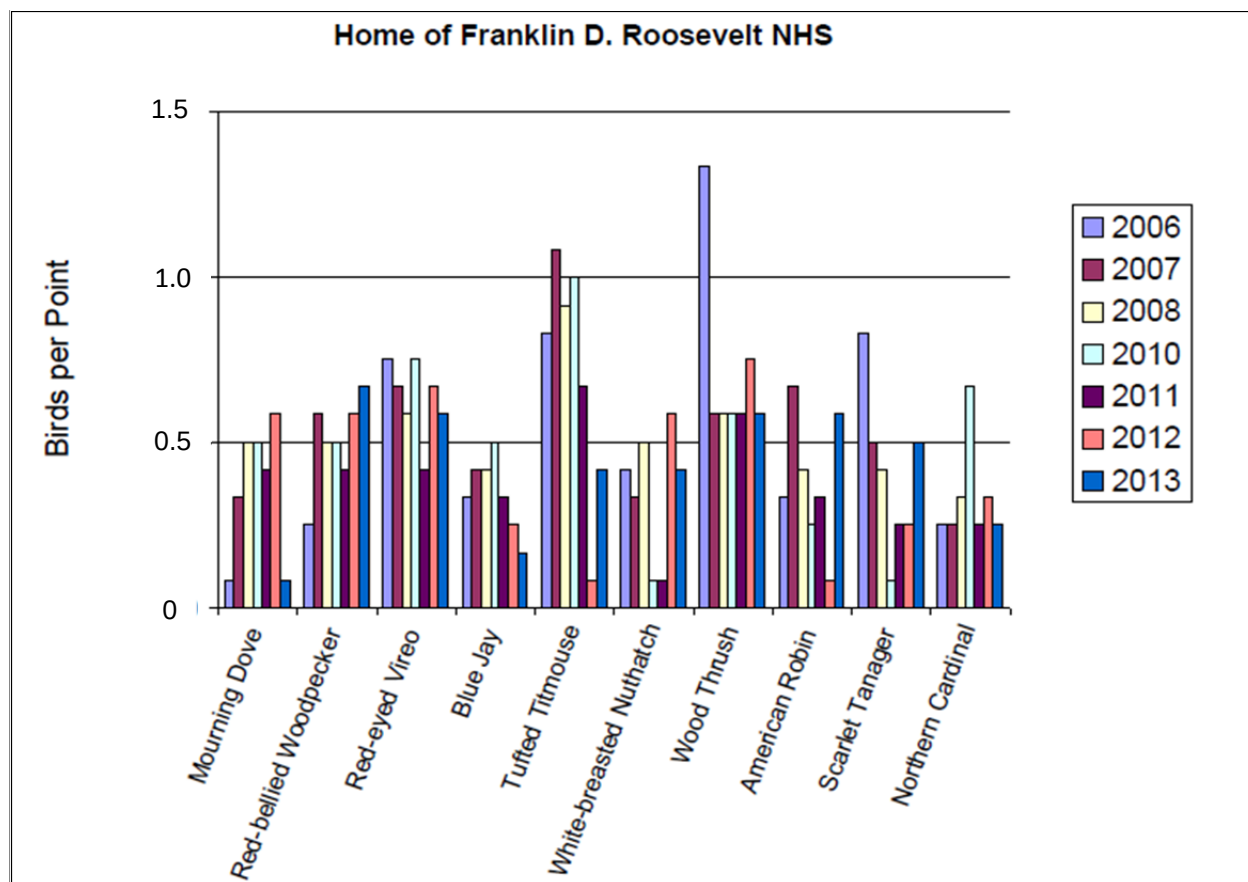


Figure 7. Relative abundance of the 10 most common species detected at the Home of Franklin D. Roosevelt National Historic Site, 2006-2013.

Table 6. Forest Avian Ecological Integrity Assessment for the Home of Franklin D. Roosevelt National Historic Site, for two time periods, 2006-2008 and 2010-2013.

Integrity Element: Compositional			2006-2008			2010-2013		
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change			
Exotic	0%	Good	0%	Good	Same			
Nest Predator / Brood Parasite	11%	Caution	9%	Good	Improve			
Resident	43%	Sig Concern	38%	Caution	Improve			
Single Brooded	54%	Caution	44%	Sig Concern	Decline			
Integrity Element: Functional			2006-2008			2010-2013		
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change			
Bark Prober	17%	Good	16%	Good	Same			
Ground Gleaner	6%	Caution	9%	Good	Improve			
High Canopy Forager	11%	Caution	9%	Caution	Same			
Low Canopy Forager	17%	Caution	9%	Sig Concern	Decline			
Omnivore	34%	Caution	44%	Caution	Same			
Integrity Element: Structural			2006-2008			2010-2013		
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change			
Canopy Nester	34%	Caution	28%	Sig Concern	Decline			
Forest-ground Nester	6%	Caution	13%	Caution	Same			
Interior Forest Obligate	23%	Caution	28%	Caution	Same			
Shrub Nester	23%	Caution	22%	Caution	Same			

Marsh-Billings-Rockefeller National Historical Park (Vermont)

Three forested study sites were established at the Marsh-Billings-Rockefeller National Historical Park (MABI) and surveyed annually since 2006 (Table 1). Two of these sites (MABI Northwest and MABI East) consist of 10 point count stations each, and one site (MABI South) consists of five point count stations (Figure 8).

During 2013 surveys, observers detected a total of 368 birds representing 44 species, including four that were only detected on repeat surveys (Pileated Woodpecker, Eastern Phoebe, Bobolink, and Brown-headed Cowbird) and four that were detected for the first time (Canada Goose, Eastern Phoebe, Swamp Sparrow, and White-throated Sparrow). A total of 62 species have been recorded over the 8 years of monitoring. This number includes the Eastern Phoebe detected on a second survey in 2013, and a Belted Kingfisher detected on a second survey in a previous year. Average abundance during the first site survey across all 8 years was 13.48 birds per point (Appendix A). In 2013, relative abundance (12.16 birds per point) and species richness ($n=40$) increased from 2012. Of the 10 most commonly detected species across all years, the relative abundances of four species (Hermit Thrush, American Robin, Ovenbird, and Scarlet Tanager) declined over 2012 values (Figure 9), while the relative abundance of just three species (Blue Jay, Black-capped Chickadee, and Black-throated Green Warbler) were above the 8-year average. Ovenbird and Red-eyed Vireo continue to be the most abundant species detected, while Hermit Thrush abundance dropped to a record low. Five species of regional or USA/Canada conservation concern were detected during point count surveys in 2013: Eastern Wood-Pewee, Eastern Kingbird, Wood Thrush, Scarlet Tanager, and Bobolink. Of these, all but Eastern Kingbird and Bobolink have been detected every year. A list of species, their relative abundances, and other summary statistics are provided in Appendices A and B.

The combined (all sites) forest avian ecological integrity assessment comparing the first 4 years of surveys at MABI (2006-2009) to the last 4 years (2010-2013), resulted in minor changes to just three categories, two of which improved while one declined (Table 7). The proportion of Residents and Shrub Nesters improved from “Caution” to “Good,” while the proportion of Canopy Nesters detected dropped from “Good” to “Caution.” Ten of the 13 guilds at MABI showed no change, with half ranked “Good” and half “Caution”, suggesting that the forest bird community is doing well in this largely forested, rural region of NETN. The assessment has also been calculated for each site (with all survey years combined), and these results are provided in Appendix C.

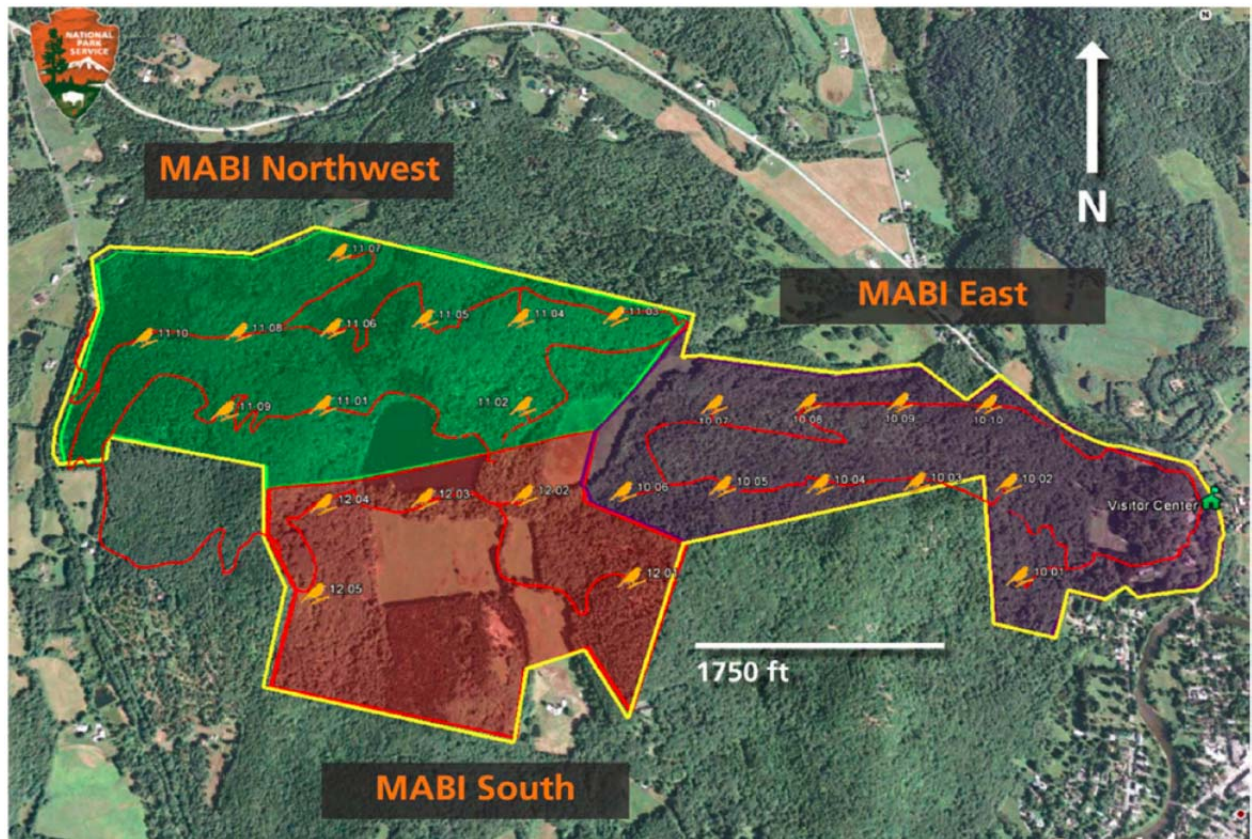


Figure 8. Point count stations at Marsh-Billings-Rockefeller National Historical Park. Google Earth image.

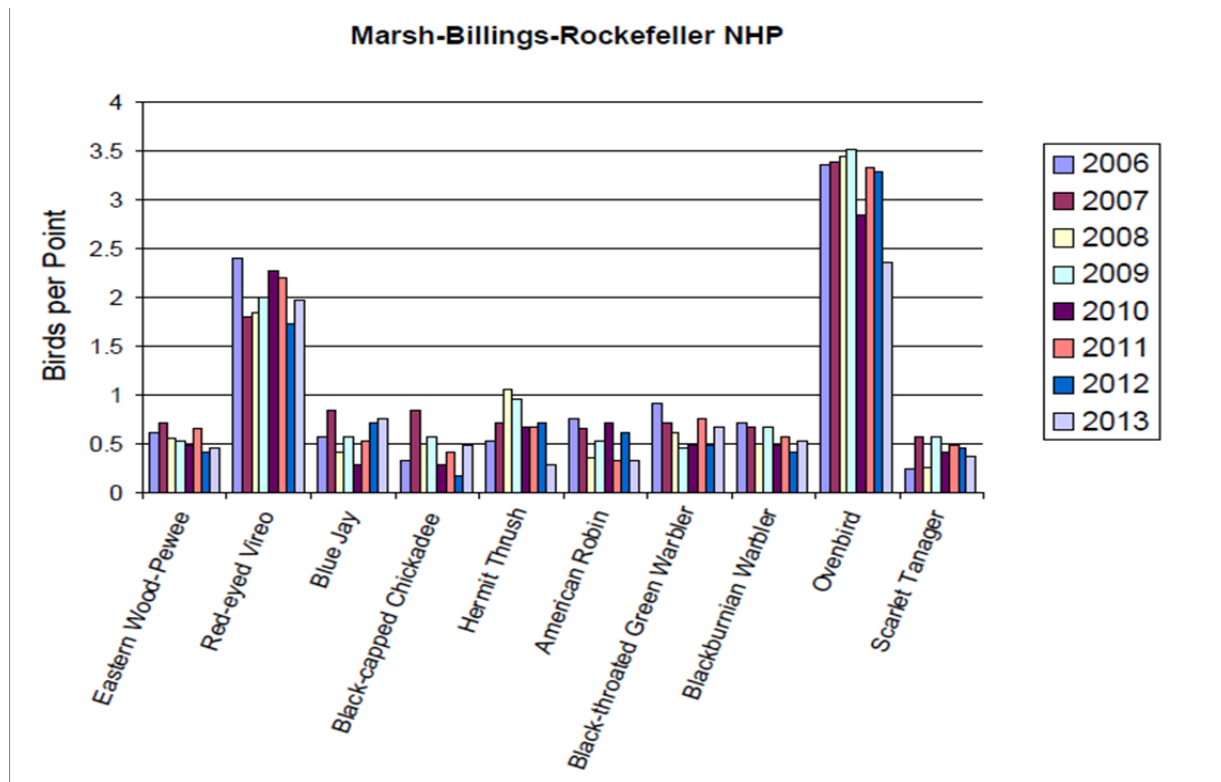


Figure 9. Relative abundance of the 10 most common species detected at Marsh-Billings-Rockefeller National Historical Park, 2006-2013.

Table 7. Combined (all sites) Forest Avian Ecological Integrity Assessment for Marsh-Billings-Rockefeller National Historical Park, for two time periods, 2006-2009 and 2010-2013.

Integrity Element: Compositional					
	2006-2009		2010-2013		
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change
Exotic	0%	Good	0%	Good	Same
Nest Predator / Brood Parasite	8%	Good	8%	Good	Same
Resident	29%	Caution	25%	Good	Improve
Single Brooded	62%	Caution	59%	Caution	Same
Integrity Element: Functional					
	2006-2009		2010-2013		
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change
Bark Prober	15%	Good	16%	Good	Same
Ground Gleaner	10%	Good	10%	Good	Same
High Canopy Forager	8%	Caution	8%	Caution	Same
Low Canopy Forager	17%	Caution	20%	Caution	Same
Omnivore	33%	Caution	33%	Caution	Same
Integrity Element: Structural					
	2006-2009		2010-2013		
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change
Canopy Nester	37%	Good	33%	Caution	Decline
Forest-ground Nester	13%	Caution	18%	Caution	Same
Interior Forest Obligate	37%	Good	37%	Good	Same
Shrub Nester	19%	Caution	18%	Good	Improve

Minute Man National Historical Park (Massachusetts)

Three study sites were established at the Minute Man National Historical Park (MIMA), located in Lexington and Concord, MA. Two of these sites (The Bluff and Miriam's Corner) consist of eight point count stations each, and one site (Hartwell Tavern) consists of seven point count stations (Figure 10). The three study sites were established in 2006 and surveyed annually, with the exception of Miriam's Corner which was not surveyed in 2010 (Table 1). The Bluff was surveyed twice in 2007, 2008, 2009, and 2011-2013, and the project manager accompanied the volunteer observer in 2011, conducting a simultaneous quality control survey. At the request of park staff, a new "grassland" survey site (Battle Road), consisting of six point count stations, was established and surveyed twice in 2012 and 2013 (Table 1). Although this site does not appear to support habitat for grassland obligate species, it does provide open, park-like habitat dominated by grasses with a few scattered, mature trees (Figure 10).

During 2013 surveys, observers detected a total of 431 birds representing 47 species, including a Sharp-shinned Hawk, a species not previously encountered during surveys at MIMA, and three species only detected during repeat surveys (Red-tailed Hawk, Hairy Woodpecker, and House Wren). A total of 64 species, including a Green Heron detected during a repeat survey in 2011, have been recorded over the 8 years of monitoring.

Average relative abundance during the first site survey across all 8 years was 12.66 birds per point. In 2013, relative abundance (10.83 birds per point) decreased from 2012, while species richness ($n=44$) decreased by one (Appendix A). Of the 10 most commonly detected species across all years, the relative abundances of just three (Blue Jay, Black-capped Chickadee, and Red-winged Blackbird) increased compared to 2012 (Figure 11), while the relative abundances of only two (Black-capped Chickadee and Gray Catbird) were above the 8-year average. A total of eight species of regional or USA/Canada conservation concern were detected during 2013, including four species that were detected in all years (Eastern Wood-Pewee, Wood Thrush, Scarlet Tanager, and Rose-breasted Grosbeak). A list of species, their relative abundances, and other summary statistics for the first survey of each point are provided in Appendices A and B.

The combined (all forest sites) forest avian ecological integrity assessment comparing the first 4 years of surveys at MIMA (2006-2009) to the last 4 years (2010-2013), resulted in changes to just three categories, two of which declined (Table 8). Although the proportion of Bark Probers detected improved from "Caution" to "Good," this result was overshadowed by the declines in the proportion of both High Canopy Foragers and Forest-ground Nesters, both of which dropped from "Caution" to "Significant Concern." Overall, the majority of integrity elements are dominated by "Caution" and "Significant Concern" ratings, which is not unexpected given the urbanized and highly fragmented landscape of the park and surrounding area. The assessment has also been calculated for each site (with all survey years combined), and these results are provided in Appendix C.

The grassland avian ecological integrity assessment is provided in Table 9. Five of the six guilds were rated "Significant Concern" and one was rated "Caution." However, this assessment is only based on two years of data, and therefore is unreliable. The ratings may improve as more data are collected, although the small extent and fragmented nature of the grassland habitat at MIMA is not expected to support grassland obligate species, which is what this integrity assessment was designed to detect.

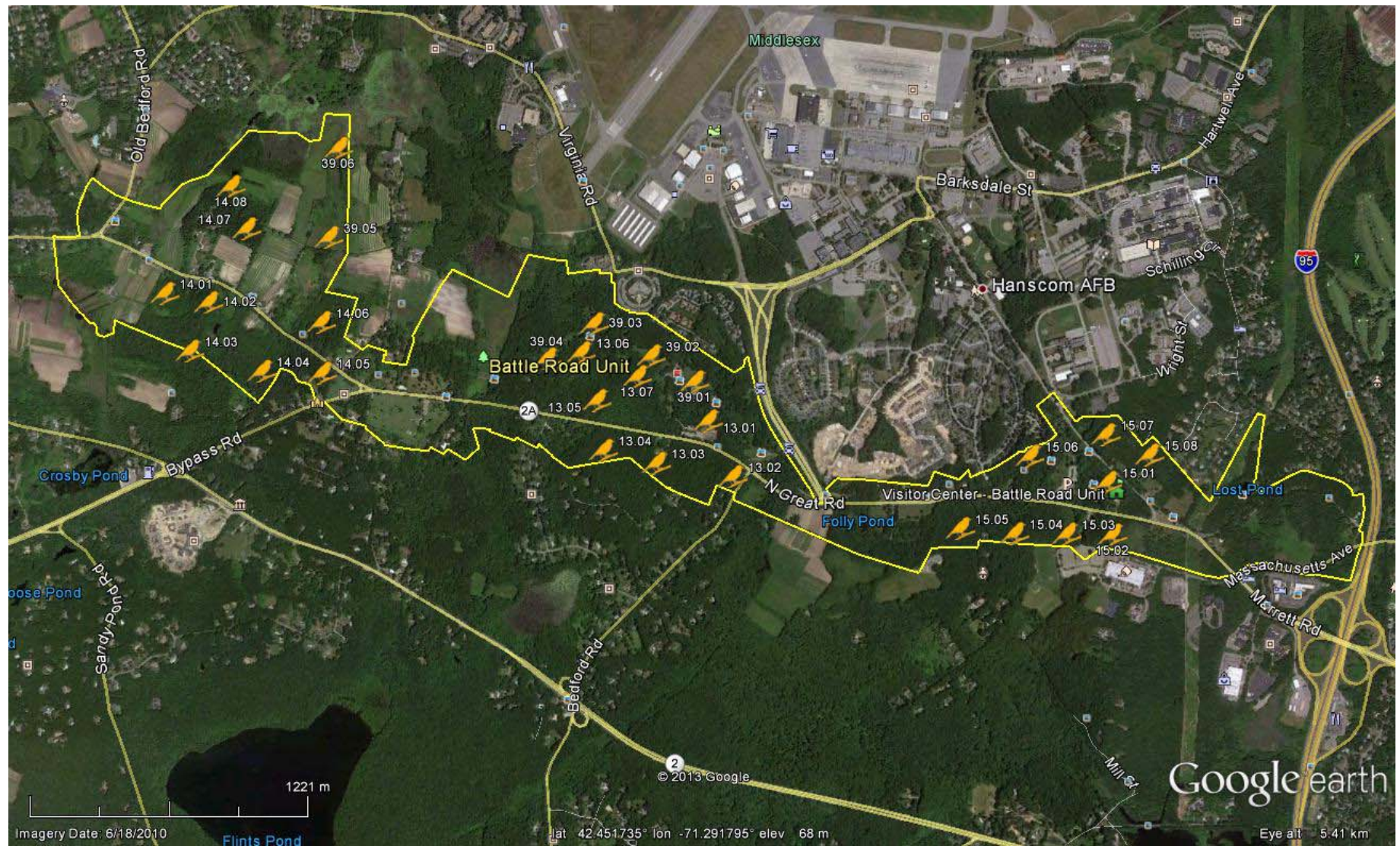


Figure 10. Point count stations at Minute Man National Historical Park. Google Earth image.

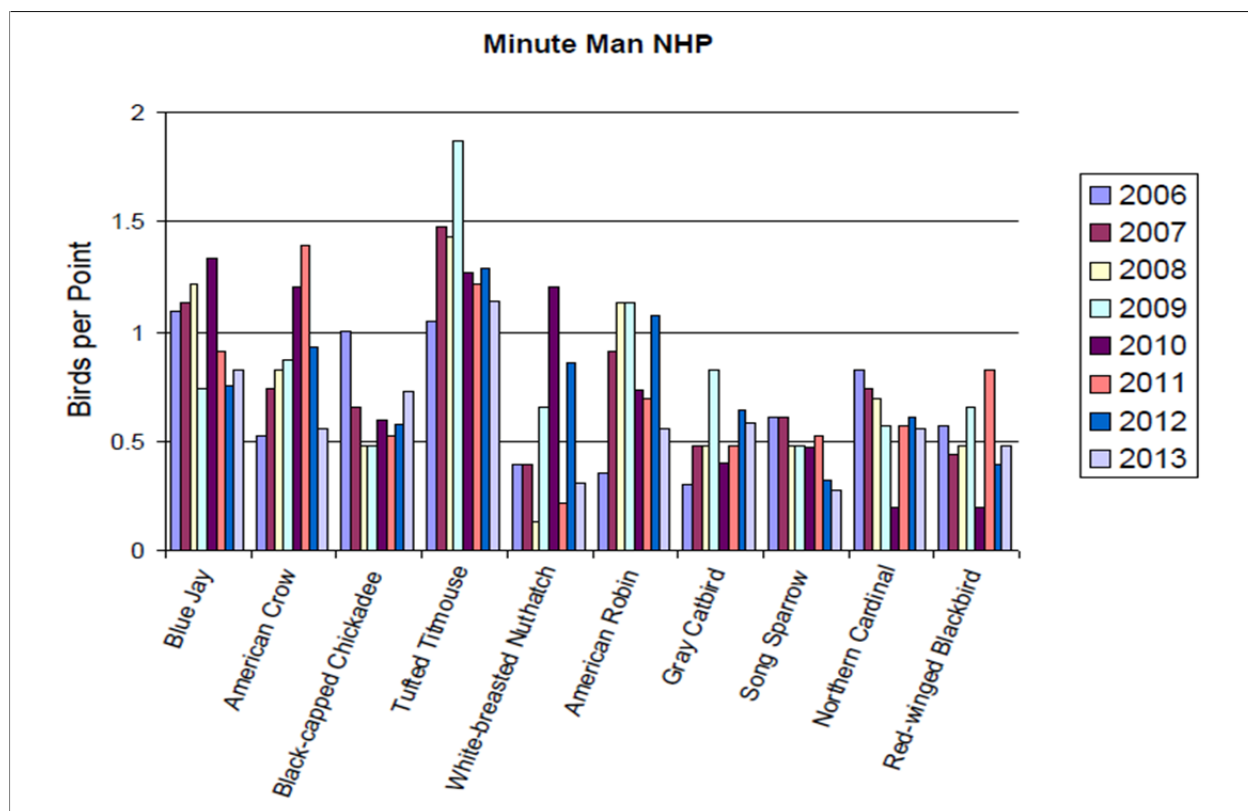


Figure 11. Relative abundance of the 10 most common species detected at Minute Man National Historical Park, 2006-2013.

Table 8. Combined (all forest sites) Forest Avian Ecological Integrity Assessment for Minute Man National Historical Park, for two time periods, 2006-2009 and 2010-2013.

Integrity Element: Compositional					
Response Guild	2006-2009		2010-2013		
	Percentage	Rating	Percentage	Rating	Rating Change
Exotic	4%	Caution	4%	Caution	Same
Nest Predator / Brood Parasite	6%	Good	9%	Good	Same
Resident	31%	Caution	38%	Caution	Same
Single Brooded	47%	Sig Concern	47%	Sig Concern	Same

Integrity Element: Functional					
Response Guild	2006-2009		2010-2013		
	Percentage	Rating	Percentage	Rating	Rating Change
Bark Prober	10%	Caution	13%	Good	Improve
Ground Gleaner	6%	Caution	4%	Caution	Same
High Canopy Forager	8%	Caution	4%	Sig	Decline
Low Canopy Forager	20%	Caution	19%	Caution	Same
Omnivore	37%	Caution	40%	Caution	Same

Integrity Element: Structural					
Response Guild	2006-2009		2010-2013		
	Percentage	Rating	Percentage	Rating	Rating Change
Canopy Nester	25%	Sig Concern	23%	Sig Concern	Same
Forest-ground Nester	6%	Caution	4%	Sig Concern	Decline
Interior Forest Obligate	16%	Caution	15%	Caution	Same
Shrub Nester	27%	Sig Concern	28%	Sig	Same

Table 9. Grassland Avian Ecological Integrity Assessment for grassland study site at Minute Man National Historical Park, 2012-2013.

Guild	Percentage	Rating
PIF Grassland Obligate	0%	Sig Concern
PIF Shrub-dependent	14%	Sig Concern
Edge Generalist	89%	Sig Concern
Exotic	7%	Sig Concern
Grassland Obligate	0%	Sig Concern
Shrub-dependent	11%	Caution

Morristown National Historical Park (New Jersey)

A total of 29 point count stations in three study sites were established in 2006 at the Morristown National Historical Park (MORR), in Morristown, New Jersey (Figure 12). One of the sites has been surveyed seven of the 8 years, one site 6 years, and the third 5 years, for a park-wide coverage rate of 75% (Table 1). In 2013, all three study sites were surveyed, including a repeat survey at one site (Mt. Kemble).

During 2013 surveys, observers detected a total of 427 birds representing 44 species, including a Black-capped Chickadee and Song Sparrow that were only detected on the repeat survey at Mt. Kemble. Two species (Canada Goose and Black-throated Blue Warbler) were observed for the first time at MORR in 2013, bringing the total number of species recorded during the 8 survey years to 60.

Average abundance during the first site visit was 11.83 birds per point, down from 2012 and below the 8-year average of 12.64 (Appendix A). However, species richness reached a record high at 42 species. Of the 10 most commonly detected species across all years, the relative abundances of three (Eastern Wood-Pewee, American Robin, and Scarlet Tanager) increased over 2012 (Figure 13), while just three species (Eastern Wood-Pewee, Ovenbird, and Scarlet Tanager) equaled or were above the 8-year average. A total of seven species of regional or USA/Canada conservation concern were detected during 2013, including three species (Eastern Wood-Pewee, Wood Thrush, and Eastern Towhee) that were detected in all survey years. In addition, Eastern Wood-Pewee and Wood Thrush were among the ten most abundant species detected (Figure 13). A list of species, their relative abundances, and other summary statistics from the first survey of each point are provided in Appendices A and B.

The combined (all sites) forest avian ecological integrity assessment comparing the first 4 years of surveys at MORR (2006-2009) to the last 4 years (2010-2013), resulted in changes to just two categories, one of which declined while one improved (Table 10). The proportion of Bark Probers declined in later years, dropping the guild from “Good” to “Caution,” while the proportion of Canopy Nesters increased by five percentage points, raising its rank from “Significant Concern” to “Caution.” In general, guilds within the Structural Integrity element consisted of “Caution” and “Significant Concern” ranks, possibly reflecting the low structural diversity throughout much of the park; the legacy of a high deer population which has resulted in very limited forest regeneration. Guilds within the “Compositional” and “Functional” metrics however, were dominated by “Caution” or “Good” ranks. The assessment has also been calculated for each site (with all survey years combined), and these results are provided in Appendix C.

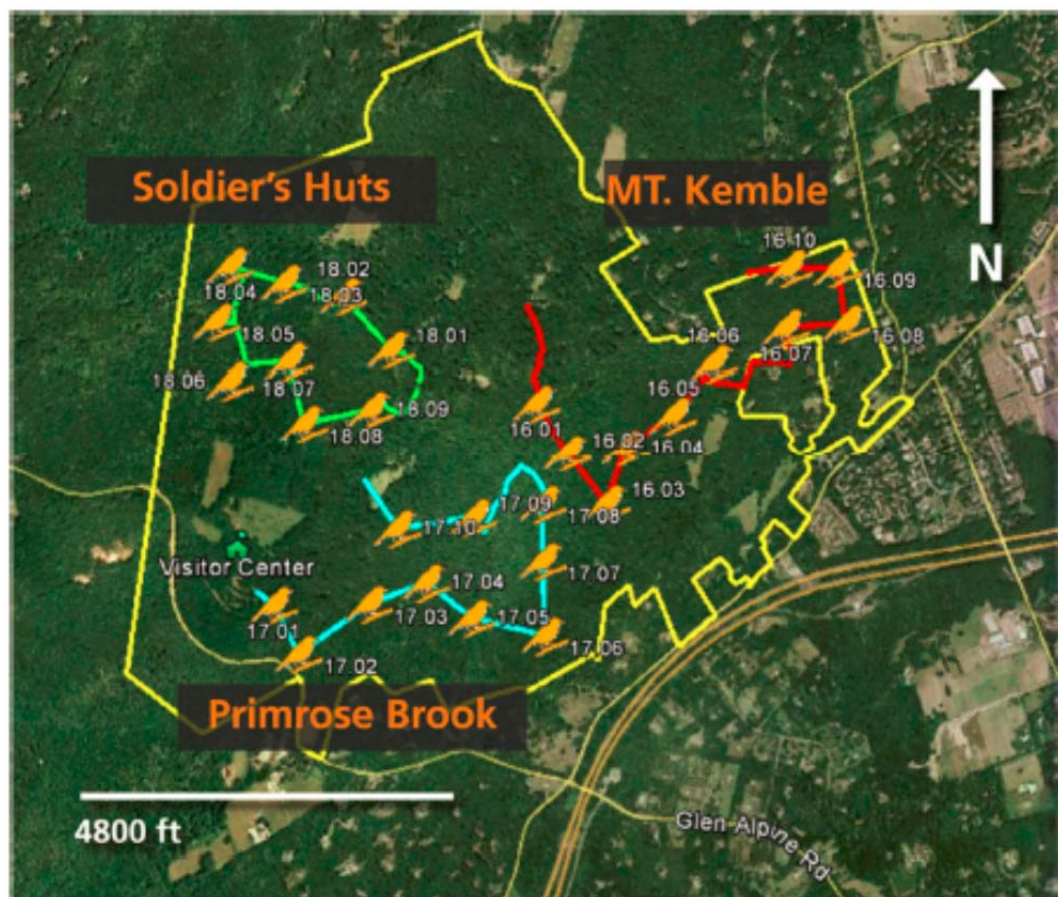


Figure 12. Point count stations at Morristown National Historical Park. Google Earth image.

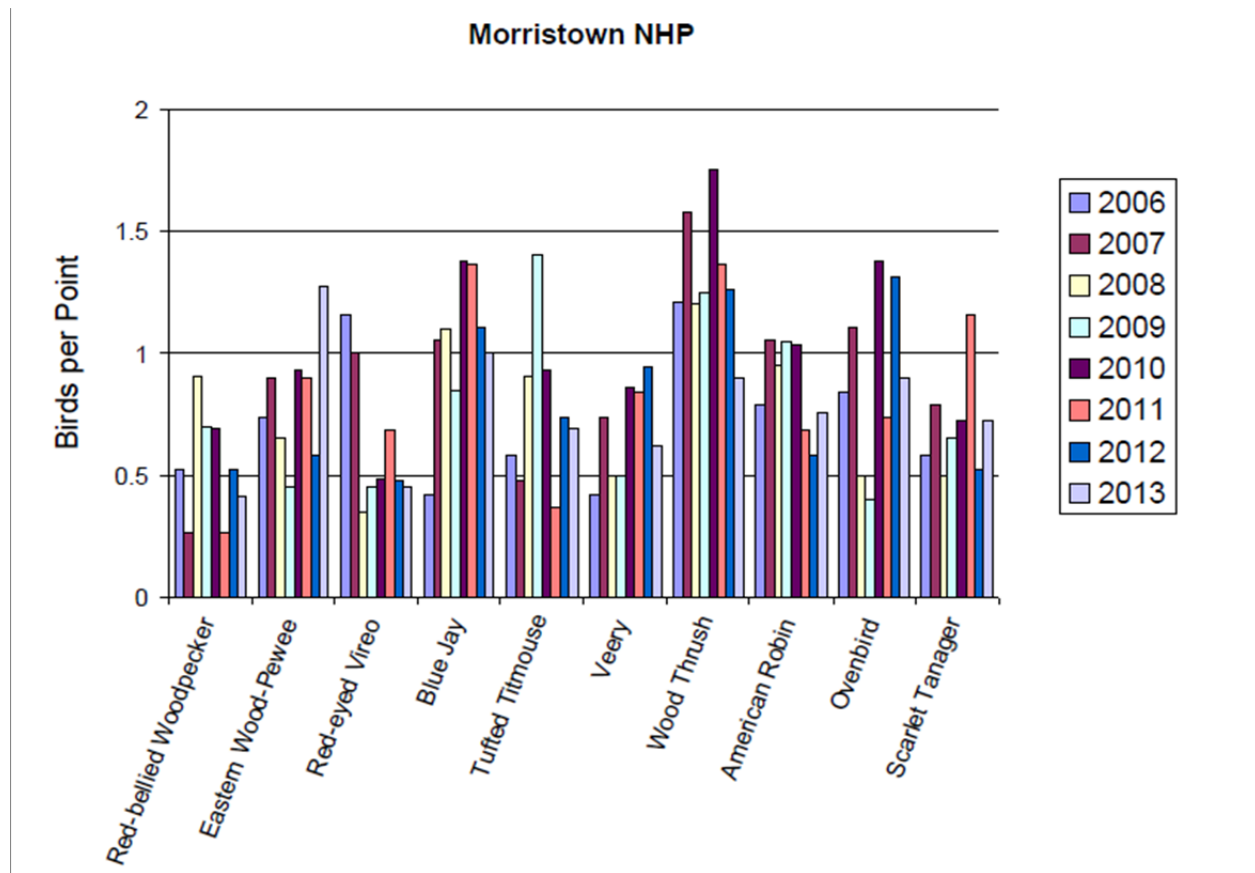


Figure 13. Relative abundance of the 10 most common species detected at Morristown National Historical Park, 2006-2013.

Table 10. Combined (all sites) Forest Avian Ecological Integrity Assessment for Morristown National Historical Park, for two time periods, 2006-2009 and 2010-2013.

Integrity Element: Compositional					
	2006-2009		2010-2013		
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change
Exotic	0%	Good	0%	Good	Same
Nest Predator / Brood Parasite	7%	Good	8%	Good	Same
Resident	31%	Caution	29%	Caution	Same
Single Brooded	56%	Caution	52%	Caution	Same
Integrity Element: Functional					
	2006-2009		2010-2013		
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change
Bark Prober	13%	Good	10%	Caution	Decline
Ground Gleaner	9%	Caution	8%	Caution	Same
High Canopy Forager	9%	Caution	10%	Caution	Same
Low Canopy Forager	22%	Good	23%	Good	Same
Omnivore	36%	Caution	38%	Caution	Same
Integrity Element: Structural					
	2006-2009		2010-2013		
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change
Canopy Nester	24%	Sig Concern	29%	Caution	Improve
Forest-ground Nester	18%	Caution	13%	Caution	Same
Interior Forest Obligate	33%	Caution	31%	Caution	Same
Shrub Nester	27%	Sig Concern	25%	Sig Concern	Same

Saint-Gaudens National Historic Site (New Hampshire)

Eight point count stations (Figure 14) were established at Saint-Gaudens National Historic Site (SAGA), and surveyed annually since 2007 (Table 1). The park has been surveyed twice in all years except 2007.

During 2013 surveys, observers detected a total of 172 birds representing 33 species, including two species (Wilson's Snipe and Indigo Bunting) that were detected for the first time, and five species that were detected only on the repeat survey. A total of 58 species have been recorded during the 7 survey years. This number includes Solitary Sandpiper, Downy Woodpecker, Yellow-throated Vireo, Cedar Waxwing, Yellow-rumped Warbler, Black-throated Blue Warbler, Swamp Sparrow, and Indigo Bunting detected only on one of the repeat surveys.

Average abundance during the first site survey was 9.88 birds per point. In 2013, relative abundance during the first survey (Appendix A) decreased for the second consecutive year, while species richness increased by one. Of the 10 most commonly detected species across all years, the relative abundances of six equaled or increased from 2012 (Figure 15), while the relative abundances of six were below the 7-year average. Five species of regional or USA/Canada conservation concern have been detected at SAGA: Belted Kingfisher, Eastern Wood-Pewee, Veery, Wood Thrush, and Scarlet Tanager; all but kingfisher were detected in 2013. A list of species, their relative abundances, and other summary statistics from the first survey of each point are provided in Appendix A.

The forest avian ecological integrity assessment comparing the first 3 years of surveys at SAGA (2007-2009) to the last 4 years (2010-2013), resulted in changes to just two categories within the Functional integrity element, one of which declined while the other improved (Table 11). The proportion of Ground Gleaners dropped by less than one percentage point to just below the threshold, bumping this guild from "Good" to "Caution," while Low Canopy Foragers increased from "Caution" to "Good." Overall, composition metrics were generally "Good," while function and structural guilds were largely "Caution" and "Good."

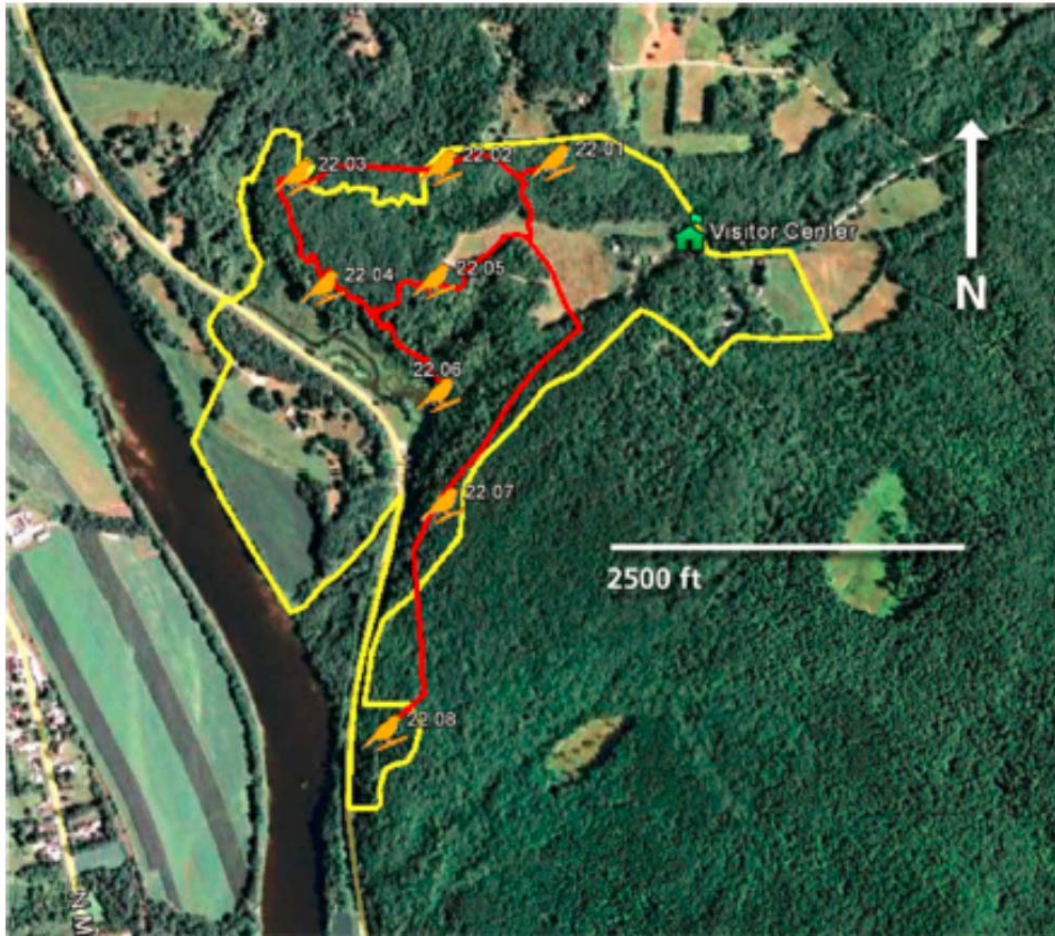


Figure 14. Point count stations at Saint-Gaudens National Historic Site. Google Earth image.

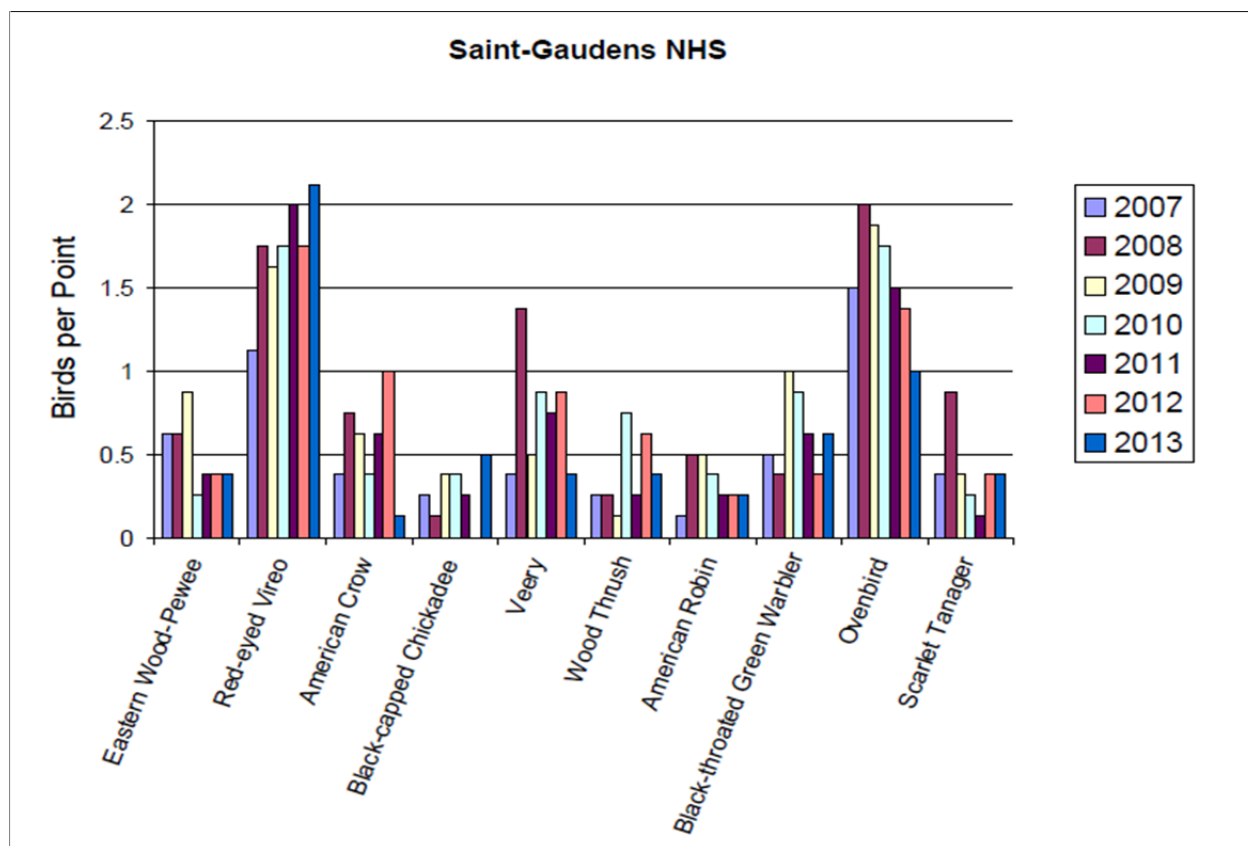


Figure 15. Relative abundance of the 10 most common species detected at Saint-Gaudens National Historic Site, 2007-2013.

Table 11. Forest Avian Ecological Integrity Assessment for Saint-Gaudens National Historic Site, for two time periods, 2007-2009 and 2010-2013.

Integrity Element: Compositional		2007-2009		2010-2013	
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change
Exotic	0%	Good	0%	Good	Same
Nest Predator / Brood Parasite	5%	Good	4%	Good	Same
Resident	23%	Good	26%	Good	Same
Single Brooded	64%	Caution	57%	Caution	Same
Integrity Element: Functional		2007-2009		2010-2013	
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change
Bark Prober	14%	Good	17%	Good	Same
Ground Gleaner	9%	Good	9%	Caution	Decline
High Canopy Forager	9%	Caution	9%	Caution	Same
Low Canopy Forager	20%	Caution	23%	Good	Improve
Omnivore	30%	Good	30%	Good	Same
Integrity Element: Structural		2007-2009		2010-2013	
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change
Canopy Nester	34%	Caution	30%	Caution	Same
Forest-ground Nester	16%	Caution	13%	Caution	Same
Interior Forest Obligate	39%	Good	38%	Good	Same
Shrub Nester	25%	Sig Concern	26%	Sig Concern	Same

Saugus Iron Works National Historic Site (Massachusetts)

Three point count stations were established in 2008 at Saugus Iron Works National Historic Site (SAIR) in Saugus, MA (Figure 16). A single survey of these three point counts was conducted during June 2008, while three surveys were conducted in 2009, and two in 2010 thru 2013 (Table 1). Due to the limited number of point counts at SAIR, multiple visits are encouraged to increase sample size.

During 2013 surveys, a total of 103 individual birds representing 33 species were detected during the two surveys (six point counts), including four species detected for the first time (Osprey, Tree Swallow, Cedar Waxwing, and House Finch). Five species (Great Black-backed Gull, Grey Catbird, Cedar Waxwing, Tree Swallow, and Common Yellowthroat) were detected only during the second survey in 2013. A total of 48 species have been detected at the park during the 6 years of surveys, including six that have only been observed during repeat site surveys (Great Egret, Killdeer, White-Breasted Nuthatch, Cedar Waxwing, Tree Swallow, and Northern Mockingbird).

Average abundance during the first site visit was 16.06 birds per point. In 2013, relative abundance for the first survey decreased slightly to 17.0 birds per point from the previous year, but species richness increased by two species. Of the 10 most commonly detected species across all years, the relative abundances of five equaled or increased from 2012 (Figure 17), while the relative abundances of three species equaled or were above the 6-year mean. Three species of regional or USA/Canada conservation concern (Chimney Swift, Eastern Kingbird, and Baltimore Oriole) and three non-native species (Rock Pigeon, European Starling, and House Sparrow) have been detected. Appendix A contains a list of the species detected, relative abundance, and other summary statistics from the first survey of each point. Mallard, Song Sparrow, and Red-winged Blackbird continue to be the most commonly detected species.

The forest avian ecological integrity assessment comparing the first 3 years of surveys at SAIR (2008-2010) to the last 3 years (2011-2013), resulted in changes to just two categories within the Functional integrity element, one of which declined while the other improved (Table 12). The proportion of Bark Probers that were detected increased, improving that guild's rank from "Significant Concern" to "Caution. However, the proportion of Low Canopy Foragers declined markedly, dropping that category from "Good" to "Caution" and eliminating the only "Good" ranking from the assessment. The scarcity of "Good" rankings is not surprising considering the urbanized location of this small park, and the fact that the tool was developed to assess the breeding bird community of interior forests.



Figure 16. Point count stations at Saugus Iron Works National Historic Site. Google Earth image.

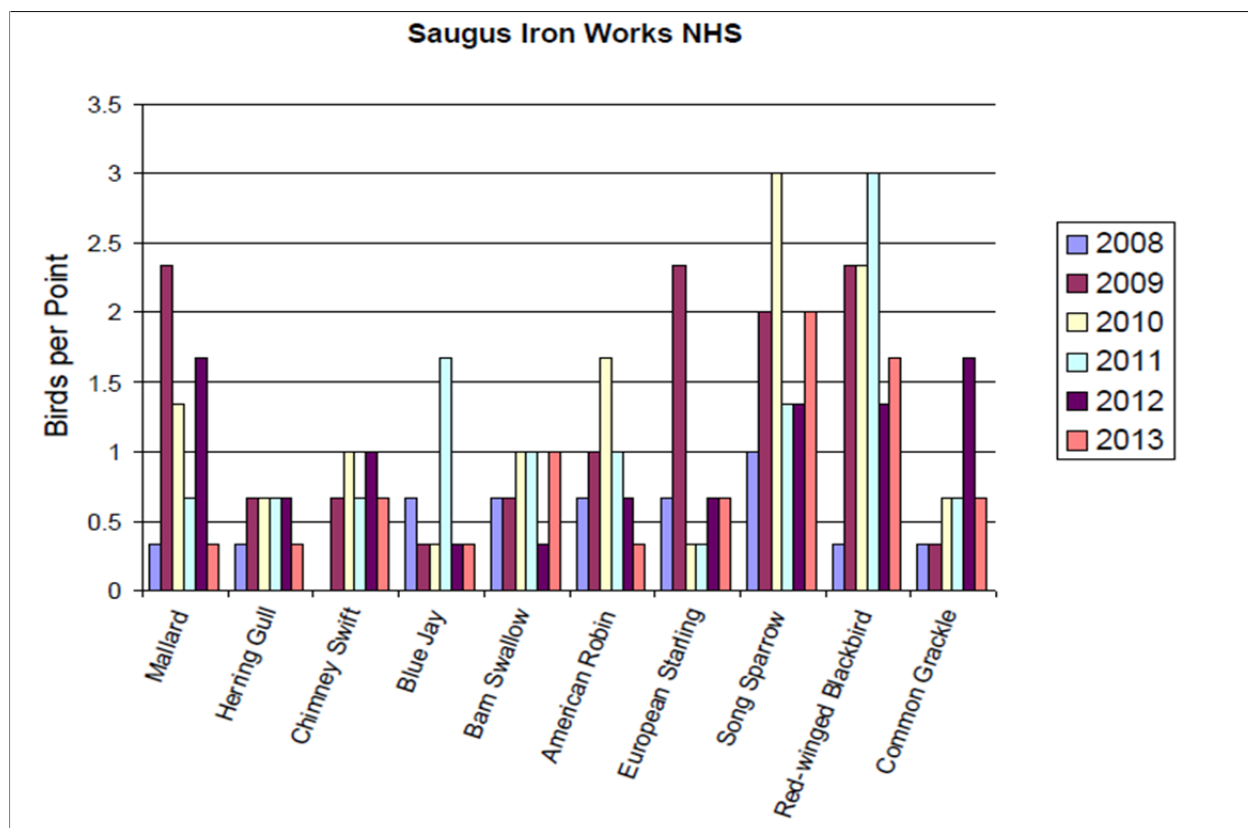


Figure 17. Relative abundance of the 10 most common species detected at Saugus Iron Works National Historic Site, 2008-2013.

Table 12. Forest Avian Ecological Integrity Assessment for Saugus Iron Works National Historic Site, for two time periods, 2008-2010 and 2011-2013.

Integrity Element: Compositional					
	2008-2010		2011-2013		
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change
Exotic	10%	Sig Concern	13%	Sig Concern	Same
Nest Predator / Brood Parasite	14%	Caution	13%	Caution	Same
Resident	41%	Sig Concern	48%	Sig Concern	Same
Single Brooded	38%	Sig Concern	39%	Sig Concern	Same
Integrity Element: Functional					
	2008-2010		2011-2013		
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change
Bark Prober	3%	Sig Concern	6%	Caution	Improve
Ground Gleaner	3%	Sig Concern	3%	Sig Concern	Same
High Canopy Forager	7%	Sig Concern	3%	Sig Concern	Same
Low Canopy Forager	24%	Good	16%	Caution	Decline
Omnivore	45%	Caution	45%	Caution	Same
Integrity Element: Structural					
	2008-2010		2011-2013		
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change
Canopy Nester	21%	Sig Concern	23%	Sig Concern	Same
Forest-ground Nester	0%	Sig Concern	0%	Sig Concern	Same
Interior Forest Obligate	0%	Sig Concern	3%	Sig Concern	Same
Shrub Nester	28%	Sig Concern	26%	Sig Concern	Same

Saratoga National Historical Park (New York)

A total of six study sites consisting of 51 point count stations were established in 2006 and 2007 at the Saratoga National Historical Park (SARA), and a new site (Northwest; 8 point count stations) was established in 2011 to replace the Bemis Heights route, which was discontinued in 2011 after being deemed hazardous by park staff. Wilkinson Trail Forest (10 points), Burgoyne's Headquarters Grassland (five points), Freeman Farm Grassland (10 points), and Neilson Farm Grassland (10 points) were established in 2006, while Middle Ravine Forest (10 points) and Bemis Heights Forest (six points) were established in 2007 (Figure 18). Point count surveys were initiated in 2006 when Wilkinson Trail Forest and all three grassland sites were sampled. However, because the observer at Wilkinson Trail was unskilled at bird identification, the data from that site in 2006 were not used (some earlier reports had included these data). Since 2007, the first year that all six study sites were available to be surveyed, 100 percent coverage was only achieved in 2008 (Table 1). Overall, 76% of the sites have been surveyed each year at Saratoga. In 2013, five out of six sites were surveyed, although the Middle Ravine site was only partially surveyed (eight points completed) when the volunteer and a park resource manager encountered several aggressive coyotes and abandoned the survey.

During 2013, surveys were conducted at 41 point count stations, where observers detected a total of 880 individual birds representing 60 species, including two species that were detected for the first time (Killdeer and Black-throated Green Warbler). During the 8 survey years a total of 6,018 individual birds representing 92 species have been detected at SARA, with a mean abundance of 21.03 birds per point (Appendix A). During 2013, relative abundance and species richness both dropped slightly from 2012. Of the 10 most commonly detected species across all years, the relative abundances of just three increased from 2012 (Figure 19), while the relative abundance of four species during 2012 (American Crow, Song Sparrow, Eastern Meadowlark, and American Goldfinch) were below the 8-year mean. During 2013, eight species of regional or USA/Canada conservation concern were recorded (Eastern Wood-Pewee, Veery, Wood Thrush, Blue-winged Warbler, Eastern Towhee, Field Sparrow, Vesper Sparrow, and Baltimore Oriole). A list of species, their relative abundances, and other summary statistics are provided in Appendices A and B.

The combined (all forest sites) forest avian ecological integrity assessment comparing the first 4 years of surveys at SARA (2006-2009) to the last 4 years (2010-2013), resulted in changes to just two categories, one of which improved while the other declined (Table 13). The proportion of Resident species detected in the sample increased, dropping that guild from "Good" to "Caution," while the proportion of High Canopy Foragers increased slightly, nudging that category from "Significant Concern" to "Caution." In general, the structural and functional metrics were dominated by "Caution" or "Significant Concern" ratings, which continue to suggest that the forest bird community at SARA may be affected by the generally fragmented landscape consisting of small forest blocks broken up by fields and early successional habitats. In addition, other stressors may be affecting vegetation structure, including deer over-browse of the understory and invasive species, such as European Buckthorn and Japanese Barberry. The forest avian ecological integrity assessment has also been calculated for each forest site (with all survey years combined), and these results are in Appendix C.

The combined (all grassland sites) grassland avian ecological integrity assessment comparing the first 4 years of surveys at SARA (2006-2009) to the last 4 years (2010-2013), resulted in changes

to three categories, all of which declined, while three others remained the same (Table 14). Two guilds that evaluate the proportion of grassland-dependent species detected both declined from “Good” to “Caution,” the most significant of which was a 25% decline in Partner’s-in-Flight (PIF) Grassland Obligate species (e.g. those listed as conservation priorities for BCR 13). The other guild that showed a decline was the Edge Generalist metric, which dropped from “Caution” to “Significant Concern” due to a slight increase in the proportion of edge species detected. Grassland communities are considered a high priority in the region, and it would be prudent for the park to continue its efforts to manage grassland habitat to support grassland species. However, because 54% of shrub-dependent birds are of high conservation concern in the region, there is also value in providing habitat for these rare and/or declining species. The grassland avian ecological integrity assessment has also been calculated for each grassland site (with all survey years combined), and these results are in Appendix D.

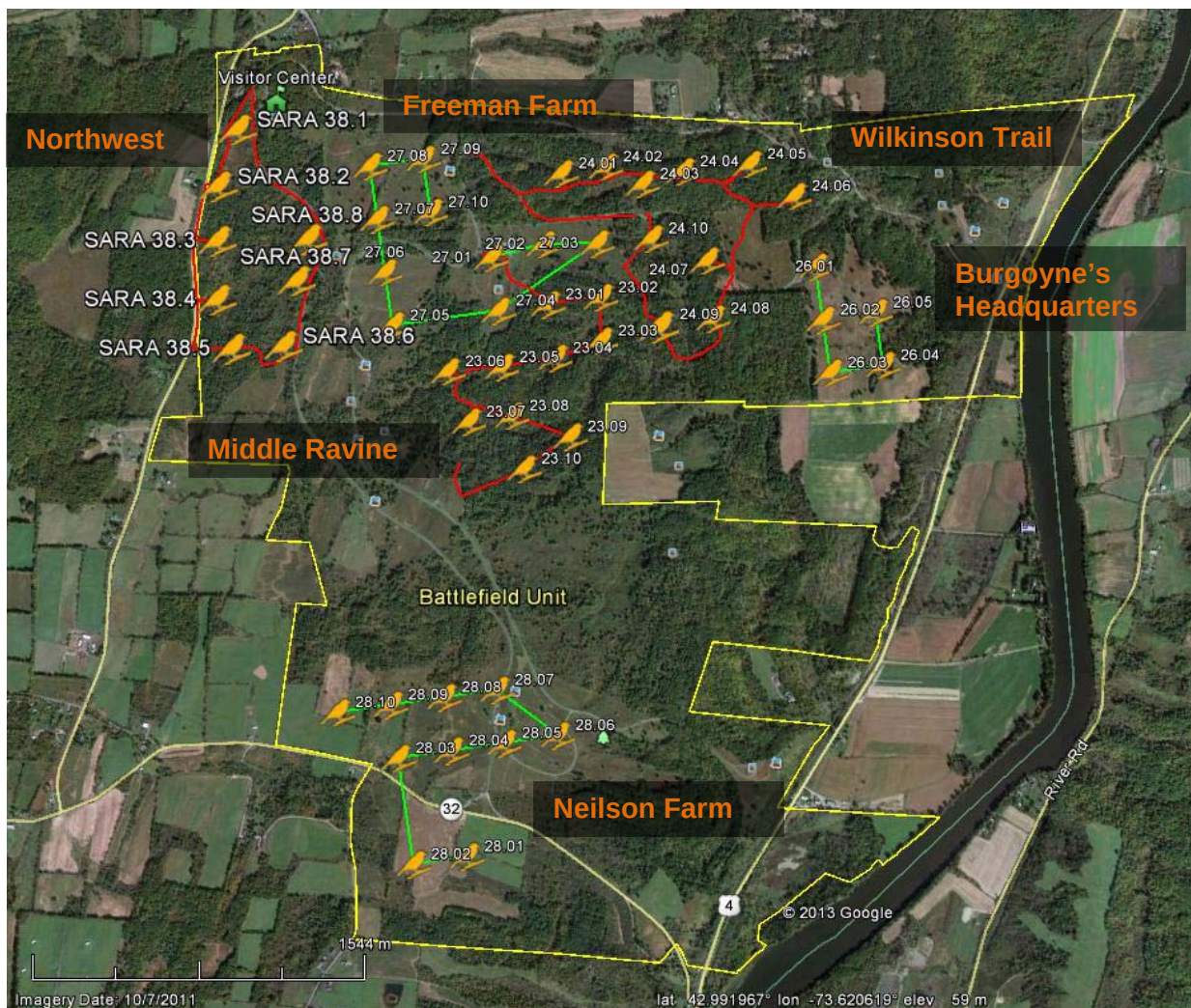


Figure 18. Point count stations at Saratoga National Historical Park. Google Earth image.

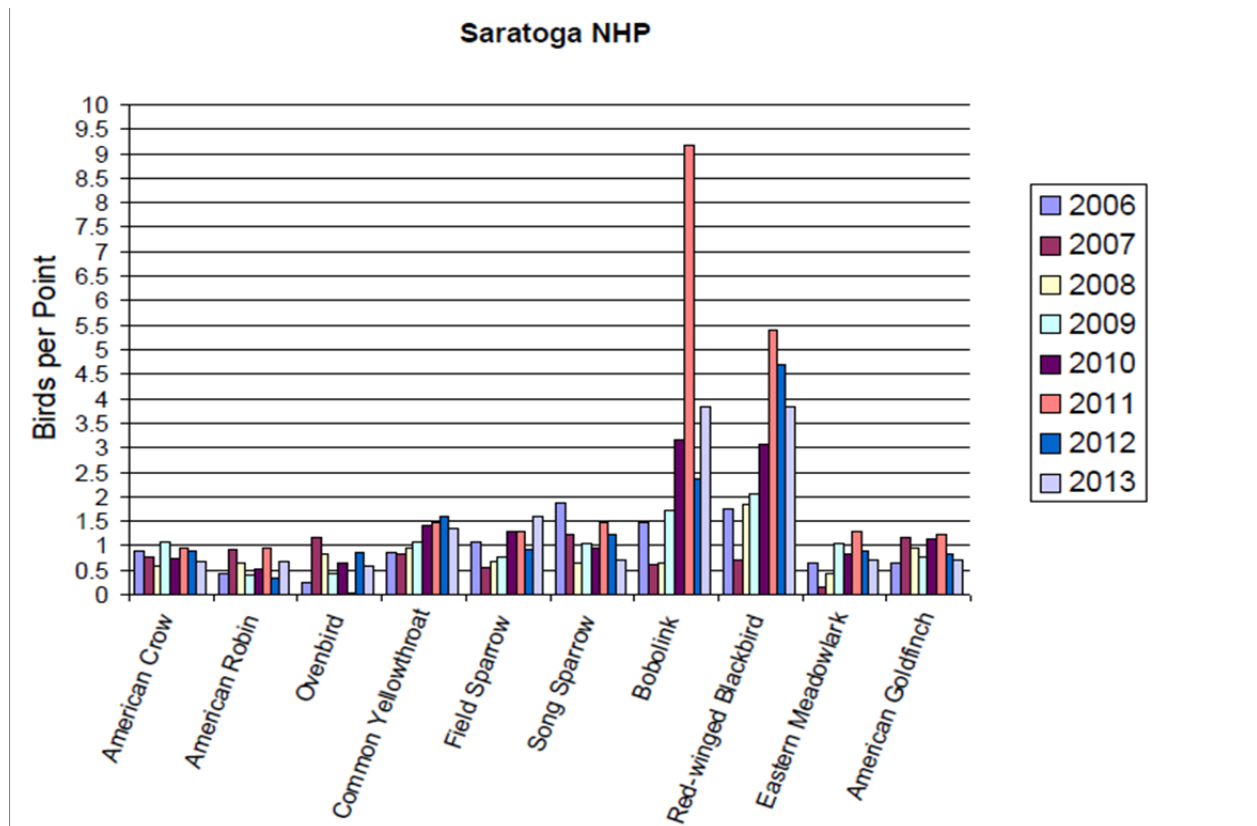


Figure 19. Relative abundance of the 10 most common species detected at Saratoga National Historical Park, 2006-2013.

Table 13. Combined Forest Avian Ecological Integrity Assessment for forested study sites at Saratoga National Historical Park, for two time periods, 2006-2009 and 2010-2013.

Integrity Element: Compositional					
Response Guild	2006-2009		2010-2013		
	Percentage	Rating	Percentage	Rating	Rating Change
Exotic	0%	Good	0%	Good	Same
Nest Predator / Brood Parasite	6%	Good	6%	Good	Same
Resident	26%	Good	30%	Caution	Decline
Single Brooded	53%	Caution	50%	Caution	Same
Integrity Element: Functional					
Response Guild	2006-2009		2010-2013		
	Percentage	Rating	Percentage	Rating	Rating Change
Bark Prober	13%	Good	16%	Good	Same
Ground Gleaner	8%	Caution	6%	Caution	Same
High Canopy Forager	6%	Sig Concern	8%	Caution	Improve
Low Canopy Forager	21%	Caution	20%	Caution	Same
Omnivore	36%	Caution	40%	Caution	Same
Integrity Element: Structural					
Response Guild	2006-2009		2010-2013		
	Percentage	Rating	Percentage	Rating	Rating Change
Canopy Nester	26%	Sig Concern	24%	Sig Concern	Same
Forest-ground Nester	13%	Caution	10%	Caution	Same
Interior Forest Obligate	26%	Caution	26%	Caution	Same
Shrub Nester	26%	Sig Concern	26%	Sig Concern	Same

Table 14. Combined Grassland Avian Ecological Integrity Assessment for grassland study sites at Saratoga National Historical Park, for two time periods, 2006-2009 and 2010-2013.

Response Guild	2006-2009		2010-2013		
	Percentage	Rating	Percentage	Rating	Rating Change
PIF Grassland Obligate	75%	Good	50%	Caution	Decline
PIF Shrub-dependent	100%	Good	86%	Good	Same
Edge Generalist	66%	Caution	70%	Sig Concern	Decline
Exotic	2%	Caution	2%	Caution	Same
Grassland Obligate	11%	Good	9%	Caution	Decline
Shrub-dependent	23%	Caution	20%	Caution	Same

Vanderbilt Mansion National Historic Site (New York)

One study site with seven point count stations was established at the Vanderbilt Mansion National Historic Site (VAMA; one of the Roosevelt-Vanderbilt National Historic Sites) and surveyed annually since 2006 (Table 1, Figure 20).

During 2013, 44 individual birds of 18 species were detected at VAMA. In total, 37 species have been recorded, with an average abundance of 7.82 birds per point (Appendix A). In 2013, relative abundance decreased to 6.29 birds per point from 2012 (7.0 birds per point), while species richness increased. Among the 10 most commonly detected species across all years, the relative abundances of four declined from 2012 (Figure 21), and the relative abundances of three species were at or above the 8-year average. Although three species of regional or USA/Canada conservation concern (Black-billed Cuckoo, Eastern Wood-Pewee, and Wood Thrush) have been detected during the 8-survey years, only Wood Thrush has been detected consistently, including in 2013. A list of species, their relative abundances, and other summary statistics are provided in Appendix A.



Figure 20. Point count stations at Vanderbilt Mansion National Historic Site. Google Earth image.

The forest avian ecological integrity assessment comparing the first 4 years of surveys at VAMA (2006-2009) to the last 4 years (2010-2013), resulted in changes to three categories, two of which improved while the other declined (Table 15). Both High Canopy Foragers and Shrub Nesters improved from “Significant Concern” to “Caution,” although the proportional changes were quite small, especially for the former guild. The proportion of birds detected in the Low Canopy Foragers guild decreased markedly (from 24% to 8%), dropping this guild’s rank from “Good” to “Significant Concern.” This could be indicative of a mature, even-aged forest with a poorly developed low canopy layer. Similarly, as in past years, guilds within the structural category earned no “Good” rankings, which may reflect the park’s location within a fragmented landscape.

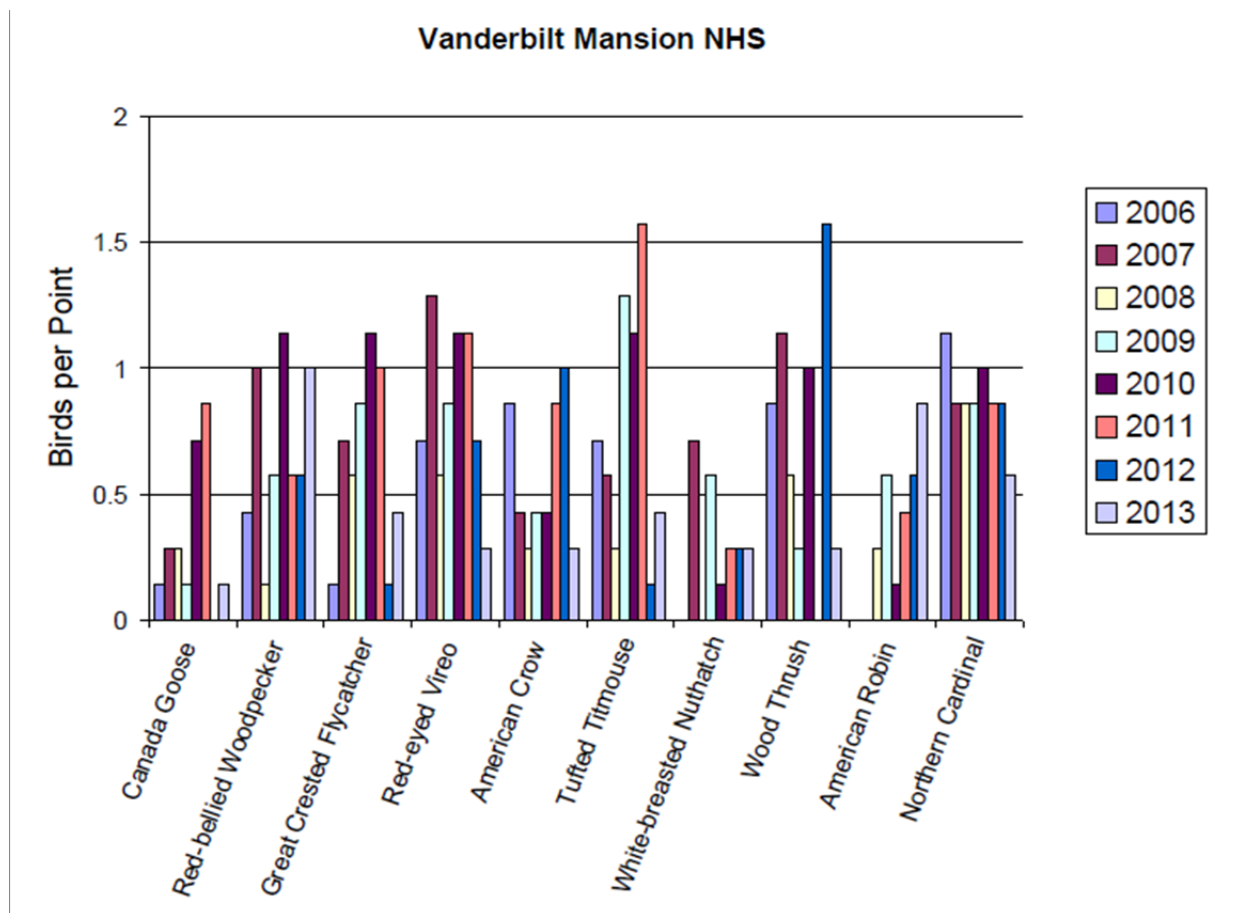


Figure 21. Relative abundance of the 10 most common species detected at Vanderbilt Mansion National Historic Site, 2006-2013.

Table 15. Forest Avian Ecological Integrity Assessment for Vanderbilt Mansion National Historic Site, for two time periods, 2006-2009 and 2010-2013.

Integrity Element: Compositional					
2006-2009			2010-2013		
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change
Exotic	0%	Good	0%	Good	Same
Nest Predator / Brood Parasite	10%	Caution	12%	Caution	Same
Resident	41%	Sig Concern	44%	Sig Concern	Same
Single Brooded	41%	Sig Concern	44%	Sig Concern	Same
Integrity Element: Functional					
2006-2009			2010-2013		
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change
Bark Prober	17%	Good	16%	Good	Same
Ground Gleaner	10%	Good	12%	Good	Same
High Canopy Forager	7%	Sig Concern	8%	Caution	Improve
Low Canopy Forager	24%	Good	8%	Sig Concern	Decline
Omnivore	31%	Caution	40%	Caution	Same
Integrity Element: Structural					
2006-2009			2010-2013		
Response Guild	Percentage	Rating	Percentage	Rating	Rating Change
Canopy Nester	28%	Sig Concern	24%	Sig Concern	Same
Forest-ground Nester	7%	Caution	12%	Caution	Same
Interior Forest Obligate	24%	Caution	28%	Caution	Same
Shrub Nester	28%	Sig Concern	24%	Caution	Improve

Weir Farm National Historic Site (Connecticut)

Five point count stations were established at Weir Farm National Historic Site in 2006 (Figure 22). Two annual surveys have been conducted in 2006, 2009, 2010, 2012, and 2013 for a 63% completion rate (Table 1).

A total of 32 individual birds of 12 species were detected in 2013, a significant drop in both metrics compared to all other survey years. These totals include House Finch, which was detected for the first time at WEFA, and three species that were only detected on the second survey (Black-capped Chickadee, Common Grackle, and Song Sparrow). In total, 41 species have been recorded over the 5 survey years (including five species that were only detected on repeat surveys: Black-throated Green Warbler, Common Yellowthroat, Eastern Bluebird, Louisiana Waterthrush, and Yellow-billed Cuckoo), with an average abundance of 6.92 birds per point (Appendix A). In 2013, relative abundance decreased significantly from 7.60 birds per point in 2012 to 3.80 birds per point, a record low for the survey. In addition, species richness decreased from 17 in 2012 to nine, also a record low. Among the 10 most commonly detected species across all years, the relative abundances of four equaled or increased from 2012 (Figure 23), and the relative abundances of just three were at or above the 5-year average. In addition, three of the 10 most common species were not detected in 2013 (Red-eyed Vireo, American Crow, and Chipping Sparrow), while Common Grackle was only detected on the repeat survey. Although five species of USA/Canada conservation concern (Eastern Wood-Pewee, Yellow-throated Vireo, Wood Thrush, Scarlet Tanager, and Baltimore Oriole) have been detected during the 5-survey years, only Baltimore Oriole was detected in 2013. A list of species, their relative abundances, and other summary statistics are provided in Appendix A.

The forest avian ecological integrity assessment for all years combined at WEFA resulted in three categories ranked as “Good,” seven ranked as “Caution,” and three ranked as “Significant Concern” (Table 16). This represents a slight change from the 2012 assessment, with the proportion of Exotic species detected increasing from zero to 3 percent, bumping that guild from “Good” to “Caution.” As in previous years, guilds within the structural category earned no “Good” rankings, while “Significant Concern” ratings reflected low abundance of canopy and single brooded species, and high abundance of shrub nesting species, indicative of the park’s location within a suburban, fragmented landscape.

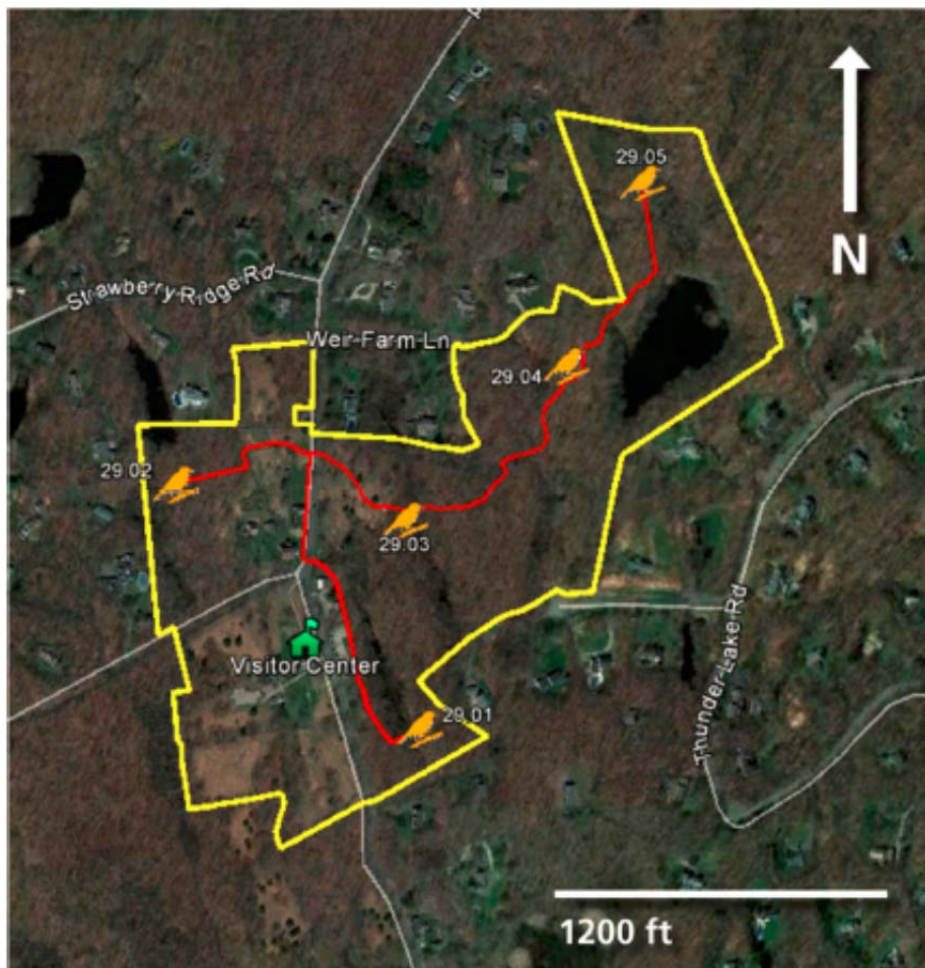


Figure 21. Point count stations at Weir Farm National Historic Site. Google Earth image.

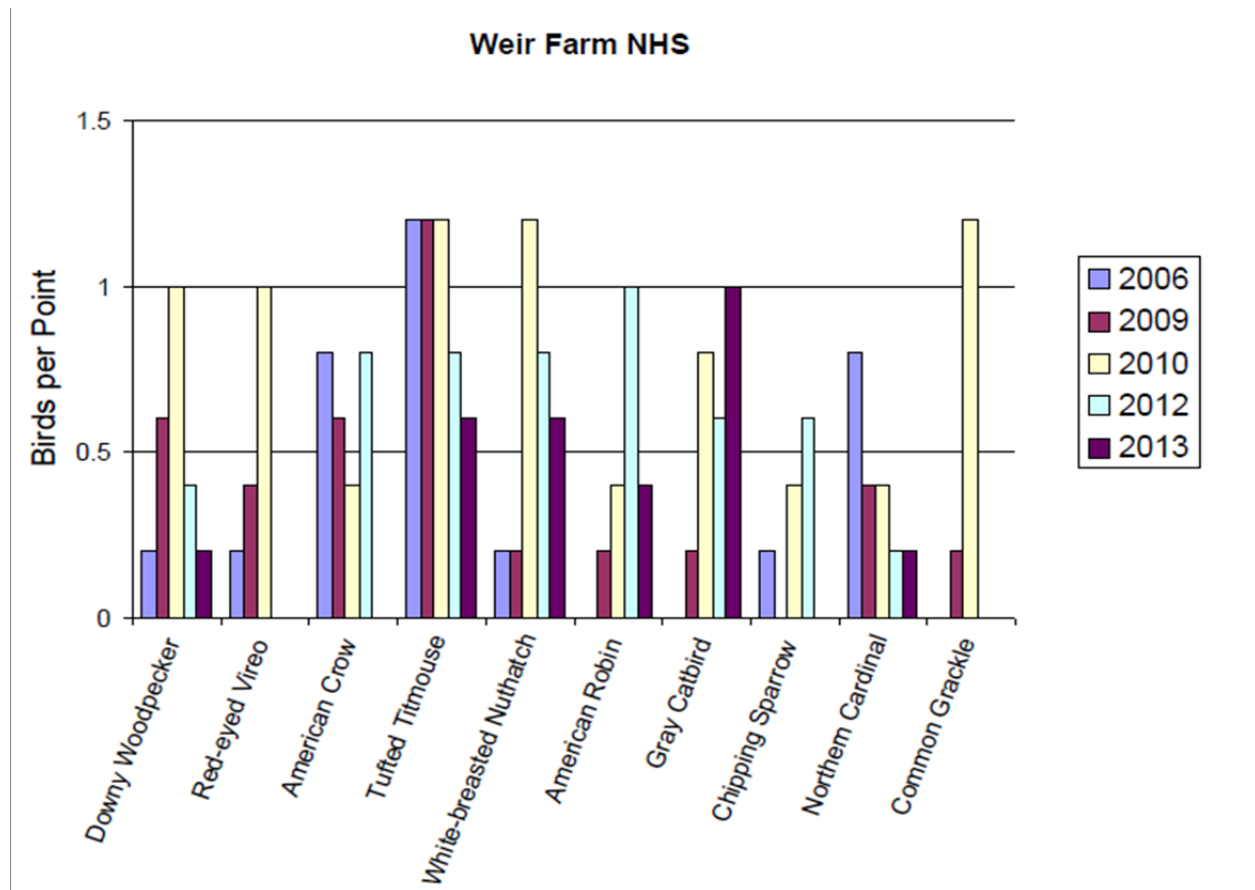


Figure 22. Relative abundance of the most common species detected at Weir Farm National Historic Site, 2006, 2009, 2010, and 2012-13.

Table 16. Forest Avian Ecological Integrity Assessment for Weir Farm National Historic Site, 2006-2013.

Integrity Element: Compositional		
	2006-2013	
Response Guild	Percentage	Rating
Exotic	3%	Caution
Nest Predator / Brood Parasite	5%	Good
Resident	33%	Caution
Single Brooded	46%	Sig Concern
Integrity Element: Functional		
	2006-2013	
Response Guild	Percentage	Rating
Bark Prober	10%	Caution
Ground Gleaner	5%	Caution
High Canopy Forager	13%	Good
Low Canopy Forager	26%	Good
Omnivore	33%	Caution
Integrity Element: Structural		
	2006-2013	
Response Guild	Percentage	Rating
Canopy Nester	26%	Sig Concern
Forest-ground Nester	5%	Caution
Interior Forest Obligate	21%	Caution
Shrub Nester	31%	Sig Concern

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Appendix A—Park Summaries

This appendix contains a list of species detected during monitoring activities in each park, and the relative abundance (birds per point) of each species for each year. It only includes data for the first survey of each point in a given year, in order to promote more consistent comparisons between years and to avoid artificially inflating abundances due to counting the same individuals in repeat visits. Species in boldface are Partners in Flight (PIF) priority species, and species in italics are the 10 most common species for each park. There will occasionally be more than 10 italicized species, if multiple species have the same abundance.

Beginning with the 2012 report, we have included the PIF Priority Species codes. If these tables are compared with those from previous years, you will note an increase in the number of PIF Priority species designated for each park. This is due to the fact that we are now including “stewardship” species, in addition to those of regional or USA/Canada concern, as well as relatively common species that are exhibiting significant population declines. For more information about the PIF Species Assessment, go to <http://pif.rmbo.org/>.

This appendix also lists the number of points surveyed per park each year, the number of birds detected per point count, the species richness, and the Shannon diversity index for each park for each year.

Appendix A. Park Summaries (continued).

Acadia NP

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Wood Duck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
Ruffed Grouse	CBSD	0.00	0.00	0.00	0.00	0.00	0.05	0.04	0.07	0.02
Spruce Grouse		0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.01
Common Loon		0.00	0.00	0.04	0.03	0.00	0.00	0.00	0.02	0.01
Osprey		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
Broad-winged Hawk	RS UCS	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.01
Herring Gull		0.04	0.00	0.00	0.00	0.05	0.07	0.00	0.00	0.02
<i>Mourning Dove</i>		<i>0.68</i>	<i>0.61</i>	<i>0.33</i>	<i>0.11</i>	<i>0.05</i>	<i>0.26</i>	<i>0.21</i>	<i>0.24</i>	<i>0.35</i>
Barred Owl		0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.01
Ruby-throated Hummingbird		0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.01
Belted Kingfisher	CBSD RC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
Downy Woodpecker		0.00	0.00	0.00	0.05	0.16	0.02	0.00	0.02	0.04
Hairy Woodpecker	UCS	0.21	0.00	0.00	0.10	0.37	0.05	0.18	0.05	0.14
Northern Flicker (Yellow-shafted Flicker)		0.00	0.00	0.00	0.03	0.00	0.07	0.04	0.12	0.04
Pileated Woodpecker		0.18	0.09	0.03	0.03	0.11	0.10	0.07	0.05	0.09
Eastern Wood-Pewee	RC	0.00	0.00	0.00	0.15	0.00	0.02	0.00	0.05	0.03
Yellow-bellied Flycatcher		0.00	0.00	0.00	0.00	0.26	0.07	0.04	0.15	0.07
Alder Flycatcher		0.04	0.00	0.00	0.00	0.00	0.02	0.04	0.00	0.01
Least Flycatcher		0.14	0.09	0.15	0.15	0.16	0.00	0.04	0.05	0.09
Eastern Phoebe		0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.01
Great Crested Flycatcher		0.04	0.00	0.00	0.21	0.00	0.05	0.00	0.00	0.04
Blue-headed Vireo	UCS	0.36	0.61	0.41	0.26	0.26	0.29	0.29	0.17	0.34
Warbling Vireo		0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.01
Red-eyed Vireo	UCS	0.00	0.04	0.38	0.26	0.26	0.05	0.18	0.27	0.17

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Acadia NP

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Blue Jay		0.18	0.17	0.17	0.44	0.11	0.05	0.11	0.12	0.17
American Crow		0.39	0.48	0.48	0.23	0.84	0.26	0.11	0.34	0.38
Common Raven		0.32	0.09	0.09	0.23	0.26	0.14	0.07	0.00	0.16
Black-capped Chickadee	UCS	0.18	0.35	0.35	0.69	0.21	0.21	0.11	0.24	0.28
Boreal Chickadee	CBSD RC	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
<i>Red-breasted Nuthatch</i>		0.54	0.26	0.26	0.28	0.89	0.31	0.57	0.27	0.45
White-breasted Nuthatch		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
Brown Creeper		0.07	0.35	0.35	0.15	0.37	0.07	0.21	0.07	0.19
Winter Wren	UCS	0.25	0.22	0.22	0.03	0.68	0.36	0.04	0.39	0.28
<i>Golden-crowned Kinglet</i>		0.36	0.83	0.83	0.28	0.53	0.36	0.21	0.46	0.43
Ruby-crowned Kinglet		0.07	0.00	0.00	0.00	0.05	0.02	0.00	0.02	0.02
Veery	RC RS UCS	0.00	0.00	0.00	0.03	0.05	0.02	0.00	0.02	0.02
Swainson's Thrush		0.14	0.04	0.04	0.03	0.16	0.33	0.36	0.24	0.19
<i>Hermit Thrush</i>		0.39	0.04	0.04	1.00	0.37	0.21	0.50	0.71	0.46
Wood Thrush	RC UCC	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
American Robin		0.50	0.30	0.30	0.28	0.16	0.14	0.21	0.24	0.26
Brown Thrasher	RC	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Cedar Waxwing	UCS	0.11	0.04	0.04	0.10	0.00	0.05	0.00	0.07	0.05
Nashville Warbler		0.00	0.00	0.00	0.03	0.11	0.12	0.07	0.00	0.05
Northern Parula	UCS	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.02
Chestnut-sided Warbler		0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Magnolia Warbler	UCS	0.14	0.17	0.17	0.00	0.37	0.19	0.11	0.24	0.18
Black-throated Blue Warbler	RS UCS	0.07	0.30	0.30	0.31	0.00	0.07	0.07	0.07	0.13
<i>Yellow-rumped Warbler (Myrtle Warbler)</i>		0.14	0.30	0.30	0.59	0.47	0.36	0.14	0.56	0.37

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Acadia NP

Common Name	PIF Codes	Relative Abundance (birds per point)								
		2006	2007	2008	2009	2010	2011	2012	2013	Mean
Black-throated Green Warbler	RS UCS	1.75	1.87	1.49	2.05	1.19	1.43	1.41	1.60	
Blackburnian Warbler	RS UCS	0.25	0.39	0.18	0.11	0.10	0.18	0.12	0.19	
Pine Warbler		0.00	0.00	0.00	0.05	0.00	0.11	0.05	0.03	
Palm Warbler		0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	
Blackpoll Warbler		0.00	0.04	0.00	0.00	0.02	0.00	0.00	0.01	
Black-and-white Warbler	RS UCS	0.14	0.04	0.28	0.00	0.31	0.11	0.10	0.14	
American Redstart	RS UCS	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.01	
Ovenbird	UCS	0.71	1.43	1.41	0.47	0.79	0.75	0.95	0.93	
Common Yellowthroat	UCS	0.00	0.04	0.00	0.00	0.07	0.07	0.07	0.04	
Canada Warbler	RC RS UCC UCS	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	
Scarlet Tanager	RC	0.00	0.00	0.00	0.00	0.00	0.04	0.02	0.01	
Eastern Towhee		0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
Song Sparrow	UCS	0.00	0.00	0.00	0.00	0.00	0.07	0.02	0.01	
Swamp Sparrow		0.00	0.00	0.05	0.00	0.00	0.07	0.05	0.02	
White-throated Sparrow		0.00	0.00	0.00	0.21	0.05	0.04	0.05	0.05	
Dark-eyed Junco (Slate-colored Junco)		0.25	0.17	0.33	0.79	0.17	0.32	0.29	0.33	
Northern Cardinal		0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	
Rose-breasted Grosbeak		0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.01	
Red-winged Blackbird		0.04	0.09	0.03	0.00	0.02	0.04	0.05	0.04	
Common Grackle		0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
Baltimore Oriole		0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	
Purple Finch	RS UCS	0.18	0.13	0.13	0.21	0.05	0.04	0.12	0.12	
White-winged Crossbill		0.00	0.00	0.00	0.16	0.00	0.04	0.00	0.03	
Pine Siskin	CBSD	0.29	0.65	0.05	0.05	0.02	0.04	0.02	0.16	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Acadia NP

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
American Goldfinch		0.00	0.00	0.00	0.05	0.00	0.05	0.11	0.07	0.04
Points Surveyed:										
<i>Ave # Birds Per Point:</i>		28	23	23	39	19	42	28	41	
		9.61	10.30	10.62	10.62	11.68	7.33	7.50	9.00	9.43
<i>Species Richness:</i>		39	31	31	38	38	47	43	50	73
<i>Shannon Diversity:</i>		3.18	2.89	2.89	3.07	3.16	3.26	3.17	3.26	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Eleanor Roosevelt NHS

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point)</i>										<i>Mean</i>
		2006	2007	2008	2009	2010	2011	2012	2013			
Canada Goose		0.00	0.00	0.00	0.09	0.18	0.09	0.00	0.00	0.05		
Wood Duck		0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.01		
Wild Turkey		0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.01		
Cooper's Hawk		0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.01		
Red-shouldered Hawk		0.00	0.00	0.00	0.18	0.09	0.00	0.27	0.18	0.09		
Red-tailed Hawk		0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.01		
Mourning Dove		0.00	0.27	0.00	0.27	0.45	0.36	0.55	0.45	0.30		
Yellow-billed Cuckoo	CBSD	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02		
Barred Owl		0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.01		
Chimney Swift	CBSD	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.01		
Ruby-throated Hummingbird		0.00	0.00	0.09	0.00	0.00	0.09	0.09	0.18	0.06		
<i>Red-bellied Woodpecker</i>		0.83	0.55	0.36	0.18	0.91	0.73	0.73	0.45	0.59		
Downy Woodpecker		0.33	0.00	0.18	0.45	0.00	0.18	0.64	0.18	0.25		
Hairy Woodpecker		0.33	0.18	0.36	0.00	0.00	0.27	0.09	0.00	0.16		
Northern Flicker (Yellow-shafted Flicker)		0.00	0.00	0.18	0.00	0.00	0.09	0.09	0.36	0.09		
Pileated Woodpecker		0.17	0.09	0.27	0.00	0.18	0.27	0.36	0.36	0.21		
<i>Eastern Wood-Pewee</i>	RC	0.00	0.27	0.09	0.36	0.09	0.82	0.91	0.73	0.41		
Eastern Phoebe		0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.09	0.02		
Great Crested Flycatcher		0.00	0.09	0.09	0.27	0.55	0.36	0.36	0.36	0.26		
Yellow-throated Vireo		0.17	0.00	0.00	0.00	0.00	0.18	0.00	0.18	0.07		
<i>Red-eyed Vireo</i>		1.17	0.91	0.64	1.00	0.73	0.64	0.64	0.64	0.79		
Blue Jay		0.33	0.27	0.27	0.27	0.36	0.64	0.55	0.55	0.41		
<i>American Crow</i>		0.83	0.45	0.36	0.82	0.55	0.45	0.36	0.27	0.51		
Black-capped Chickadee		0.00	0.00	0.09	0.09	0.00	0.36	0.27	0.45	0.16		

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Eleanor Roosevelt NHS

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
<i>Tufted Titmouse</i>		0.50	1.27	0.27	0.64	0.73	1.00	0.55	0.73	0.71
<i>White-breasted Nuthatch</i>		0.17	0.45	0.82	0.18	0.36	0.55	0.45	0.55	0.44
<i>Brown Creeper</i>		0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.01
<i>Carolina Wren</i>		0.00	0.00	0.00	0.00	0.09	0.18	0.00	0.27	0.07
<i>House Wren</i>		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.01
<i>Blue-gray Gnatcatcher</i>		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.01
<i>Eastern Bluebird</i>		0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.01
Veery	RC	0.50	0.27	0.27	0.09	0.18	0.09	0.00	0.00	0.18
Wood Thrush	RC UCC	1.83	1.27	0.55	0.82	1.00	0.45	0.55	0.55	0.88
<i>American Robin</i>		0.67	0.73	0.73	0.45	0.45	0.27	0.55	0.27	0.52
<i>Gray Catbird</i>		0.17	0.36	0.36	0.18	0.18	0.27	1.09	0.64	0.41
<i>Northern Mockingbird</i>		0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.01
Cedar Waxwing	UCS	0.00	0.00	0.00	0.00	0.00	0.18	0.09	0.18	0.06
Prairie Warbler	CBSD UCC	0.00	0.00	0.00	0.00	0.00	0.27	0.55	0.55	0.17
<i>Black-and-white Warbler</i>		0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.01
<i>Worm-eating Warbler</i>		0.33	0.09	0.00	0.18	0.00	0.09	0.18	0.09	0.12
<i>Ovenbird</i>		0.50	0.36	0.45	0.27	0.45	0.27	1.00	0.55	0.48
<i>Louisiana Waterthrush</i>		0.00	0.00	0.00	0.09	0.00	0.09	0.09	0.18	0.06
<i>Common Yellowthroat</i>		0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.18	0.05
<i>Scarlet Tanager</i>		1.00	0.09	0.36	0.27	0.09	0.45	0.27	0.18	0.34
<i>Chipping Sparrow</i>		0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.36	0.07
Song Sparrow	UCS	0.00	0.09	0.00	0.00	0.00	0.18	0.09	0.27	0.08
<i>Northern Cardinal</i>		0.50	1.09	0.45	1.00	0.64	0.27	0.55	0.18	0.59
<i>Rose-breasted Grosbeak</i>		0.00	0.36	0.00	0.00	0.00	0.36	0.09	0.09	0.11

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Eleanor Roosevelt NHS

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point)</i>											<i>Mean</i>
Indigo Bunting		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.18	0.09	0.06
Red-winged Blackbird		0.00	0.18	0.00	0.00	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08
Common Grackle		0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.02
Brown-headed Cowbird		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.01
Baltimore Oriole	RC RS UCS	0.00	0.09	0.09	0.09	0.00	0.00	0.00	0.00	0.09	0.00	0.09	0.05
American Goldfinch	UCS	0.00	0.09	0.09	0.09	0.00	0.00	0.00	0.00	0.36	0.36	0.27	0.15
<i>Points Surveyed:</i>													
		6	11	11	11	11	11	11	11	11	11	11	
<i>Ave # Birds Per Point:</i>		10.50	10.27	7.45	7.45	8.45	8.45	8.45	8.45	11.73	13.18	12.00	10.26
<i>Species Richness:</i>		19	28	23	23	25	25	22	22	40	35	38	54
<i>Shannon Diversity:</i>		2.70	2.93	2.94	2.94	2.91	2.83	2.83	2.83	3.43	3.29	3.45	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Home of Franklin D. Roosevelt NHS

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Canada Goose		0.00	0.08	0.00		0.17	0.00	0.00	0.08	0.05
Mute Swan		0.00	0.00	0.08		0.00	0.00	0.00	0.00	0.01
Wood Duck		0.00	0.00	0.00		0.00	0.00	0.00	0.08	0.01
Wild Turkey		0.08	0.08	0.00		0.00	0.00	0.00	0.00	0.02
Red-tailed Hawk		0.00	0.08	0.00		0.00	0.00	0.00	0.00	0.01
<i>Mourning Dove</i>		0.08	0.33	0.50		0.50	0.42	0.58	0.08	0.36
Yellow-billed Cuckoo	CBSD	0.00	0.08	0.00		0.00	0.00	0.00	0.00	0.01
Barred Owl		0.00	0.00	0.00		0.00	0.08	0.00	0.00	0.01
<i>Red-bellied Woodpecker</i>		0.25	0.58	0.50		0.50	0.42	0.58	0.67	0.50
Downy Woodpecker		0.17	0.17	0.17		0.00	0.17	0.17	0.00	0.12
Hairy Woodpecker		0.08	0.00	0.00		0.08	0.08	0.00	0.00	0.04
Northern Flicker (Yellow-shafted Flicker)		0.25	0.00	0.25		0.08	0.00	0.08	0.08	0.11
Pileated Woodpecker		0.00	0.25	0.08		0.08	0.25	0.00	0.08	0.11
Eastern Wood-Pewee	RC	0.17	0.17	0.17		0.33	0.17	0.00	0.00	0.14
Least Flycatcher	RC	0.00	0.08	0.00		0.00	0.00	0.00	0.00	0.01
Great Crested Flycatcher		0.25	0.33	0.00		0.58	0.25	0.17	0.00	0.23
Yellow-throated Vireo		0.00	0.00	0.08		0.00	0.00	0.00	0.00	0.01
Blue-headed Vireo		0.00	0.08	0.00		0.00	0.00	0.00	0.00	0.01
<i>Red-eyed Vireo</i>		0.75	0.67	0.58		0.75	0.42	0.67	0.58	0.63
<i>Blue Jay</i>		0.33	0.42	0.42		0.50	0.33	0.25	0.17	0.35
American Crow		0.33	0.00	0.25		0.00	0.17	0.08	0.08	0.13
Fish Crow		0.08	0.08	0.08		0.00	0.00	0.00	0.00	0.04
Black-capped Chickadee		0.25	0.33	0.17		0.00	0.00	0.00	0.00	0.11
<i>Tufted Titmouse</i>		0.83	1.08	0.92		1.00	0.67	0.08	0.42	0.71

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Home of Franklin D. Roosevelt NHS

Common Name	PIF Codes	Relative Abundance (birds per point)									
		2006	2007	2008	2009	2010	2011	2012	2013	Mean	
White-breasted Nuthatch		0.42	0.33	0.50		0.08	0.08	0.58	0.42	0.35	
Brown Creeper		0.08	0.00	0.08		0.00	0.00	0.00	0.00	0.02	
Carolina Wren		0.00	0.00	0.17		0.17	0.00	0.00	0.08	0.06	
Ruby-crowned Kinglet		0.00	0.00	0.00		0.00	0.00	0.08	0.00	0.01	
Blue-gray Gnatcatcher		0.00	0.08	0.00		0.00	0.08	0.00	0.00	0.02	
Eastern Bluebird		0.00	0.00	0.00		0.00	0.08	0.00	0.00	0.01	
Veery	RC	0.00	0.00	0.00		0.00	0.08	0.00	0.00	0.01	
Wood Thrush	RC UCC	1.33	0.58	0.58		0.58	0.58	0.75	0.58	0.71	
American Robin		0.33	0.67	0.42		0.25	0.33	0.08	0.58	0.38	
Northern Mockingbird		0.00	0.00	0.00		0.00	0.08	0.00	0.00	0.01	
Worm-eating Warbler		0.00	0.00	0.00		0.08	0.00	0.00	0.00	0.01	
Ovenbird		0.08	0.00	0.08		0.00	0.08	0.08	0.00	0.05	
Louisiana Waterthrush		0.25	0.25	0.08		0.17	0.00	0.00	0.17	0.13	
Common Yellowthroat		0.08	0.00	0.00		0.00	0.00	0.00	0.00	0.01	
Scarlet Tanager		0.83	0.50	0.42		0.08	0.25	0.25	0.50	0.40	
Chipping Sparrow		0.00	0.00	0.00		0.00	0.00	0.08	0.00	0.01	
Northern Cardinal		0.25	0.25	0.33		0.67	0.25	0.33	0.25	0.33	
Rose-breasted Grosbeak		0.00	0.17	0.00		0.33	0.00	0.08	0.00	0.08	
Red-winged Blackbird		0.08	0.25	0.00		0.17	0.25	0.08	0.25	0.15	
Common Grackle		0.17	0.00	0.00		0.33	0.00	0.08	0.00	0.08	
Brown-headed Cowbird		0.00	0.17	0.00		0.08	0.00	0.00	0.00	0.04	
Baltimore Oriole	RC RS UCS	0.00	0.17	0.00		0.00	0.00	0.00	0.08	0.04	
American Goldfinch	UCS	0.00	0.08	0.00		0.00	0.00	0.00	0.00	0.01	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Home of Franklin D. Roosevelt NHS

Common Name	PIF Codes	Relative Abundance (birds per point)											Mean
		2006	2007	2008	2009	2010	2011	2012	2013				
Points Surveyed:													
Ave # Birds Per Point:													
Species Richness:													
Shannon Diversity:													

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Marsh-Billings-Rockefeller NHP

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Canada Goose		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.01
Wild Turkey		0.00	0.00	0.05	0.00	0.00	0.04	0.00	0.00	0.01
Broad-winged Hawk	RS UCS	0.04	0.00	0.00	0.00	0.00	0.04	0.00	0.04	0.02
Mourning Dove		0.12	0.16	0.15	0.16	0.32	0.00	0.04	0.04	0.12
Barred Owl		0.00	0.28	0.00	0.04	0.00	0.00	0.08	0.00	0.05
Chimney Swift	CBSD	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.01
Yellow-bellied Sapsucker	UCS	0.12	0.32	0.20	0.20	0.28	0.40	0.20	0.48	0.28
Downy Woodpecker		0.16	0.12	0.00	0.08	0.00	0.00	0.08	0.00	0.06
Hairy Woodpecker	UCS	0.16	0.20	0.20	0.00	0.04	0.04	0.08	0.12	0.11
Northern Flicker (Yellow-shafted Flicker)		0.08	0.04	0.00	0.00	0.04	0.00	0.00	0.04	0.03
Pileated Woodpecker		0.08	0.04	0.00	0.08	0.00	0.08	0.08	0.00	0.05
Eastern Wood-Pewee	RC	0.60	0.72	0.55	0.52	0.48	0.64	0.40	0.44	0.54
Least Flycatcher		0.04	0.12	0.05	0.00	0.04	0.00	0.00	0.00	0.03
Great Crested Flycatcher		0.08	0.04	0.25	0.08	0.12	0.08	0.16	0.08	0.11
Eastern Kingbird	RC	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.04	0.01
Blue-headed Vireo	UCS	0.32	0.20	0.20	0.12	0.20	0.16	0.16	0.36	0.22
Red-eyed Vireo	UCS	2.40	1.80	1.85	2.00	2.28	2.20	1.72	1.96	2.03
Blue Jay		0.56	0.84	0.40	0.56	0.28	0.52	0.72	0.76	0.58
American Crow		0.20	0.36	0.15	0.20	0.16	0.28	0.28	0.20	0.23
Common Raven		0.08	0.00	0.05	0.00	0.04	0.04	0.12	0.12	0.06
Black-capped Chickadee	UCS	0.32	0.84	0.50	0.56	0.28	0.40	0.16	0.48	0.44
Tufted Titmouse		0.04	0.04	0.05	0.04	0.00	0.00	0.00	0.00	0.02
Red-breasted Nuthatch		0.04	0.08	0.00	0.04	0.20	0.08	0.00	0.04	0.06
White-breasted Nuthatch		0.32	0.32	0.10	0.36	0.12	0.16	0.16	0.16	0.21

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Marsh-Billings-Rockefeller NHP

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Brown Creeper		0.52	0.52	0.40	0.36	0.28	0.08	0.16	0.12	0.31
Winter Wren	UCS	0.04	0.04	0.20	0.04	0.04	0.04	0.00	0.28	0.09
Golden-crowned Kinglet		0.04	0.04	0.05	0.00	0.00	0.04	0.00	0.08	0.03
Veery	RC RS UCS	0.12	0.12	0.10	0.00	0.00	0.08	0.00	0.00	0.05
<i>Hermit Thrush</i>		0.52	0.72	1.05	0.96	0.68	0.68	0.72	0.28	0.70
Wood Thrush	RC UCC	0.40	0.24	0.35	0.16	0.48	0.28	0.36	0.16	0.30
<i>American Robin</i>		0.76	0.64	0.35	0.52	0.72	0.32	0.60	0.32	0.53
Cedar Waxwing	UCS	0.00	0.04	0.05	0.00	0.04	0.08	0.04	0.12	0.05
Nashville Warbler		0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.01
Chestnut-sided Warbler		0.00	0.00	0.05	0.00	0.00	0.04	0.12	0.24	0.06
Black-throated Blue Warbler	RS UCS	0.16	0.24	0.15	0.28	0.16	0.12	0.40	0.40	0.24
Yellow-rumped Warbler (Myrtle Warbler)		0.08	0.08	0.05	0.08	0.08	0.04	0.00	0.20	0.08
Black-throated Green Warbler	RS UCS	0.92	0.72	0.60	0.44	0.48	0.76	0.48	0.68	0.64
Blackburnian Warbler	RS UCS	0.72	0.68	0.50	0.68	0.48	0.56	0.40	0.52	0.57
Pine Warbler		0.00	0.04	0.10	0.16	0.20	0.16	0.12	0.12	0.11
Black-and-white Warbler	RS UCS	0.12	0.08	0.00	0.00	0.00	0.12	0.00	0.04	0.05
American Redstart	RS UCS	0.04	0.04	0.00	0.04	0.00	0.04	0.00	0.00	0.02
Ovenbird	UCS	3.36	3.40	3.45	3.52	2.84	3.32	3.28	2.36	3.19
Louisiana Waterthrush		0.00	0.08	0.00	0.00	0.00	0.08	0.00	0.00	0.02
Mourning Warbler		0.00	0.00	0.00	0.04	0.08	0.00	0.00	0.04	0.02
Common Yellowthroat	UCS	0.08	0.12	0.20	0.08	0.08	0.12	0.04	0.04	0.10
Scarlet Tanager	RC	0.24	0.56	0.25	0.56	0.40	0.48	0.44	0.36	0.41
Chipping Sparrow		0.12	0.04	0.00	0.04	0.00	0.04	0.00	0.04	0.04
Song Sparrow	UCS	0.00	0.00	0.00	0.00	0.04	0.04	0.00	0.00	0.01

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Marsh-Billings-Rockefeller NHP

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Swamp Sparrow		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.01
White-throated Sparrow		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.01
Dark-eyed Junco (Slate-colored Junco)		0.24	0.44	0.05	0.16	0.40	0.48	0.32	0.08	0.27
Rose-breasted Grosbeak		0.32	0.12	0.05	0.20	0.16	0.16	0.12	0.20	0.17
Indigo Bunting		0.00	0.20	0.10	0.00	0.04	0.04	0.00	0.00	0.05
Bobolink	CBSD RC UCC	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Red-winged Blackbird		0.04	0.28	0.15	0.00	0.00	0.00	0.00	0.00	0.06
Common Grackle		0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Brown-headed Cowbird		0.04	0.08	0.05	0.04	0.04	0.00	0.00	0.00	0.03
Baltimore Oriole		0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Purple Finch	RS UCS	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.01
American Goldfinch		0.00	0.04	0.05	0.00	0.00	0.00	0.08	0.00	0.02
<i>Points Surveyed:</i>										
<i>Ave # Birds Per Point:</i>		25	25	20	25	25	25	25	25	13.48
<i>Species Richness:</i>		14.72	16.28	13.10	13.44	12.60	13.40	12.12	12.16	13.48
<i>Shannon Diversity:</i>		42	48	38	35	35	41	31	40	60
		2.91	3.12	2.84	2.76	2.83	2.84	2.75	2.99	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Minute Man NHP

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Canada Goose		0.00	0.04	0.00	0.00	0.00	0.09	0.00	0.00	0.02
Wild Turkey		0.09	0.00	0.00	0.00	0.00	0.04	0.04	0.03	0.03
Great Blue Heron		0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.03	0.02
Sharp-shinned Hawk		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
Red-tailed Hawk		0.00	0.00	0.00	0.13	0.00	0.00	0.04	0.00	0.02
Killdeer		0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Mourning Dove		0.09	0.00	0.09	0.00	0.27	0.13	0.04	0.14	0.09
Black-billed Cuckoo	CBSD UCC	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01
Yellow-billed Cuckoo	CBSD RC	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.01
Chimney Swift	CBSD RC	0.00	0.09	0.00	0.00	0.00	0.00	0.04	0.00	0.02
Belted Kingfisher	CBSD	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.01
Red-bellied Woodpecker		0.00	0.09	0.13	0.17	0.00	0.22	0.43	0.10	0.14
Downy Woodpecker		0.26	0.52	0.30	0.52	0.53	0.39	0.50	0.52	0.44
Hairy Woodpecker		0.04	0.17	0.00	0.04	0.07	0.09	0.00	0.00	0.05
Northern Flicker (Yellow-shafted Flicker)		0.09	0.00	0.13	0.09	0.13	0.09	0.11	0.14	0.10
Eastern Wood-Pewee	RC	0.35	0.26	0.13	0.30	0.67	0.22	0.21	0.31	0.31
Alder Flycatcher		0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.01
Eastern Phoebe		0.04	0.00	0.04	0.04	0.13	0.00	0.07	0.21	0.07
Great Crested Flycatcher		0.09	0.00	0.22	0.13	0.07	0.22	0.11	0.10	0.12
Eastern Kingbird	RC	0.04	0.00	0.00	0.00	0.00	0.04	0.00	0.03	0.02
Warbling Vireo		0.04	0.00	0.04	0.13	0.00	0.00	0.00	0.00	0.03
Red-eyed Vireo		0.00	0.09	0.35	0.09	0.20	0.13	0.39	0.07	0.16
Blue Jay		1.09	1.13	1.22	0.74	1.33	0.91	0.75	0.83	1.00
American Crow		0.52	0.74	0.83	0.87	1.20	1.39	0.93	0.55	0.88

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Minute Man NHP

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point)</i>								
		2006	2007	2008	2009	2010	2011	2012	2013	Mean
Fish Crow		0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.01
Tree Swallow		0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.07	0.02
Barn Swallow		0.00	0.00	0.00	0.04	0.00	0.04	0.00	0.07	0.02
Black-capped Chickadee		1.00	0.65	0.48	0.48	0.60	0.52	0.57	0.72	0.63
Tufted Titmouse		1.04	1.48	1.43	1.87	1.27	1.22	1.29	1.14	1.34
Red-breasted Nuthatch		0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.01
White-breasted Nuthatch		0.39	0.39	0.13	0.65	1.20	0.22	0.86	0.31	0.52
Carolina Wren		0.13	0.17	0.00	0.04	0.00	0.00	0.04	0.14	0.07
House Wren		0.04	0.04	0.00	0.09	0.00	0.00	0.07	0.00	0.03
Blue-gray Gnatcatcher		0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.01
Eastern Bluebird		0.00	0.00	0.00	0.04	0.00	0.00	0.07	0.00	0.01
Veery	RC	0.04	0.13	0.00	0.00	0.00	0.00	0.07	0.10	0.04
Hermit Thrush		0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Wood Thrush	RC UCC	0.30	0.30	0.35	0.35	0.27	0.17	0.29	0.07	0.26
American Robin		0.35	0.91	1.13	1.13	0.73	0.70	1.07	0.55	0.82
Gray Catbird	UCS	0.30	0.48	0.48	0.83	0.40	0.48	0.64	0.59	0.52
Northern Mockingbird		0.00	0.09	0.00	0.09	0.00	0.04	0.14	0.07	0.05
European Starling		0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00
Cedar Waxwing		0.04	0.04	0.00	0.26	0.00	0.00	0.07	0.03	0.06
Blue-winged Warbler	RC RS UCS	0.13	0.00	0.00	0.09	0.00	0.00	0.00	0.07	0.04
Yellow Warbler		0.04	0.00	0.13	0.09	0.07	0.04	0.07	0.03	0.06
Pine Warbler		0.22	0.30	0.39	0.74	0.67	0.17	0.11	0.28	0.36
American Redstart		0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.01
Ovenbird		0.39	0.52	0.30	0.48	0.27	0.39	0.39	0.55	0.41

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Minute Man NHP

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Common Yellowthroat		0.43	0.43	0.35	0.65	0.40	0.22	0.32	0.28	0.39
Scarlet Tanager	RC	0.26	0.09	0.22	0.65	0.20	0.13	0.25	0.21	0.25
Chipping Sparrow		0.04	0.00	0.17	0.13	0.13	0.22	0.18	0.21	0.14
<i>Song Sparrow</i>		0.61	0.61	0.48	0.48	0.47	0.52	0.32	0.28	0.47
Swamp Sparrow		0.00	0.00	0.04	0.04	0.00	0.00	0.00	0.00	0.01
<i>Northern Cardinal</i>		0.83	0.74	0.70	0.57	0.20	0.57	0.61	0.55	0.59
Rose-breasted Grosbeak	RC	0.17	0.17	0.13	0.39	0.27	0.26	0.04	0.03	0.18
Indigo Bunting		0.04	0.13	0.13	0.04	0.20	0.00	0.04	0.10	0.09
<i>Red-winged Blackbird</i>		0.57	0.43	0.48	0.65	0.20	0.83	0.39	0.48	0.50
Common Grackle		0.35	0.13	0.09	0.52	0.20	0.57	0.18	0.21	0.28
Brown-headed Cowbird		0.17	0.48	0.13	0.30	0.00	0.30	0.07	0.10	0.20
Baltimore Oriole	RC	0.13	0.13	0.00	0.26	0.13	0.13	0.04	0.10	0.12
House Finch		0.13	0.09	0.04	0.09	0.13	0.04	0.04	0.10	0.08
American Goldfinch		0.65	0.48	0.22	0.22	0.87	0.35	0.50	0.24	0.44
House Sparrow		0.04	0.13	0.04	0.04	0.07	0.22	0.11	0.03	0.09
Points Surveyed:										
Ave # Birds Per Point:		23	23	23	23	15	23	28	29	
		11.70	12.74	11.57	15.78	13.67	12.35	12.64	10.83	12.66
Species Richness:										
		42	36	35	47	34	38	45	44	63
Shannon Diversity:										
		3.27	3.20	3.12	3.37	3.15	3.23	3.30	3.35	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Morristown NHP

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Canada Goose		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
Wild Turkey		0.00	0.11	0.00	0.00	0.07	0.00	0.00	0.03	0.03
Turkey Vulture		0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Red-tailed Hawk		0.05	0.05	0.10	0.05	0.17	0.05	0.11	0.07	0.08
Mourning Dove		0.05	0.05	0.15	0.05	0.28	0.05	0.32	0.07	0.13
Yellow-billed Cuckoo	CBSD	0.00	0.21	0.05	0.25	0.10	0.00	0.00	0.21	0.10
Eastern Screech-Owl		0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.01
Great Horned Owl		0.00	0.00	0.10	0.15	0.10	0.16	0.21	0.21	0.12
Barred Owl		0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.01
<i>Red-bellied Woodpecker</i>		0.53	0.26	0.90	0.70	0.69	0.26	0.53	0.41	0.54
Downy Woodpecker	RS UCS	0.11	0.11	0.30	0.35	0.28	0.21	0.21	0.21	0.22
Hairy Woodpecker		0.00	0.00	0.25	0.20	0.34	0.21	0.37	0.10	0.18
Northern Flicker (Yellow-shafted Flicker)		0.21	0.53	0.25	0.25	0.45	0.21	0.37	0.34	0.33
Pileated Woodpecker	UCS	0.11	0.11	0.10	0.20	0.24	0.32	0.37	0.24	0.21
Eastern Wood-Pewee	RC	0.74	0.89	0.65	0.45	0.93	0.89	0.58	1.28	0.80
Acadian Flycatcher	RC RS UCS	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
Eastern Phoebe	UCS	0.00	0.05	0.05	0.00	0.07	0.00	0.05	0.03	0.03
Great Crested Flycatcher		0.05	0.05	0.20	0.10	0.03	0.16	0.11	0.03	0.09
Yellow-throated Vireo	RC RS UCS	0.05	0.11	0.05	0.00	0.00	0.05	0.05	0.03	0.04
Blue-headed Vireo		0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
Red-eyed Vireo	UCS	1.16	1.00	0.35	0.45	0.48	0.68	0.47	0.45	0.63
Blue Jay		0.42	1.05	1.10	0.85	1.38	1.37	1.11	1.00	1.03
American Crow		0.05	0.53	0.40	0.35	0.48	0.26	0.26	0.10	0.31
Fish Crow		0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Morristown NHP

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Black-capped Chickadee		0.05	0.05	0.05	0.00	0.03	0.05	0.00	0.00	0.03
Tufted Titmouse	UCS	0.58	0.47	0.90	1.40	0.93	0.37	0.74	0.69	0.76
White-breasted Nuthatch	UCS	0.16	0.26	0.60	0.40	0.48	0.32	0.53	0.03	0.35
Carolina Wren		0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.14	0.03
House Wren		0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.10	0.02
Blue-gray Gnatcatcher		0.00	0.00	0.00	0.10	0.14	0.05	0.16	0.00	0.06
Eastern Bluebird	UCS	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.03	0.02
Veery		0.42	0.74	0.50	0.50	0.86	0.84	0.95	0.62	0.68
Swainson's Thrush		0.05	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.01
Wood Thrush	RC RS UCC UCS	1.21	1.58	1.20	1.25	1.76	1.37	1.26	0.90	1.32
American Robin		0.79	1.05	0.95	1.05	1.03	0.68	0.58	0.76	0.86
Gray Catbird	UCS	0.05	0.11	0.10	0.10	0.17	0.32	0.68	0.10	0.20
Cedar Waxwing	UCS	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Black-throated Blue Warbler		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.01
Blackpoll Warbler		0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Cerulean Warbler	RC RS UCC UCS	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
Black-and-white Warbler	RC	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
American Redstart		0.21	0.32	0.00	0.10	0.21	0.26	0.42	0.21	0.22
Worm-eating Warbler	RC RS UCS	0.00	0.21	0.20	0.05	0.00	0.00	0.11	0.03	0.08
<i>Ovenbird</i>		0.84	1.11	0.50	0.40	1.38	0.74	1.32	0.90	0.90
Louisiana Waterthrush	RC RS UCS	0.16	0.11	0.00	0.00	0.00	0.21	0.00	0.03	0.06
Kentucky Warbler	RC UCC	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.07	0.02
Common Yellowthroat	UCS	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.01
Hooded Warbler	RS UCS	0.16	0.21	0.00	0.00	0.14	0.16	0.63	0.28	0.20

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Morristown NHP

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point)</i>										<i>Mean</i>
		2006	2007	2008	2009	2010	2011	2012	2013			
Canada Warbler	UCC	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
Scarlet Tanager	RS UCS	0.58	0.79	0.50	0.65	0.72	1.16	0.53	0.72	0.71	0.71	0.71
Eastern Towhee	RC RS UCS	0.47	0.58	0.05	0.30	0.66	0.42	0.79	0.66	0.49	0.49	0.49
Chipping Sparrow		0.00	0.05	0.00	0.00	0.07	0.05	0.00	0.03	0.03	0.03	0.03
Song Sparrow	UCS	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.01	0.01	0.01
Northern Cardinal		0.16	0.47	0.10	0.40	0.14	0.21	0.05	0.07	0.20	0.20	0.20
Rose-breasted Grosbeak		0.05	0.21	0.10	0.05	0.10	0.05	0.37	0.07	0.13	0.13	0.13
Indigo Bunting	UCS	0.00	0.00	0.10	0.00	0.03	0.00	0.00	0.03	0.02	0.02	0.02
Common Grackle		0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.01	0.01	0.01
Brown-headed Cowbird		0.11	0.16	0.00	0.05	0.07	0.16	0.00	0.24	0.10	0.10	0.10
Baltimore Oriole		0.47	0.11	0.30	0.10	0.03	0.00	0.16	0.17	0.17	0.17	0.17
American Goldfinch	RS UCS	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.01	0.01	0.01
<i>Points Surveyed:</i>		19	19	20	20	29	19	19	29			
<i>Ave # Birds Per Point:</i>		10.53	13.84	11.35	11.35	15.21	12.58	14.47	11.83	12.64	12.64	12.64
<i>Species Richness:</i>		35	36	33	31	39	36	33	42	60	60	60
<i>Shannon Diversity:</i>		3.06	3.13	3.08	3.03	3.12	3.12	3.19	3.19	3.19	3.19	3.19

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Saint-Gaudens NHS

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Wild Turkey		0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.02
Wilson's Snipe		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.02
Mourning Dove		0.00	0.00	0.00	0.13	0.00	0.50	0.00	0.00	0.09
Belted Kingfisher	CBSD RC	0.00	0.00	0.13	0.00	0.13	0.00	0.25	0.00	0.07
Red-bellied Woodpecker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.02
Yellow-bellied Sapsucker	UCS	0.13	0.00	0.00	0.00	0.25	0.50	0.25	0.00	0.16
Hairy Woodpecker	UCS	0.00	0.00	0.00	0.38	0.00	0.13	0.00	0.00	0.07
Northern Flicker (Yellow-shafted Flicker)		0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Pileated Woodpecker		0.38	0.00	0.00	0.25	0.00	0.00	0.13	0.13	0.13
Eastern Wood-Pewee	RC	0.63	0.63	0.63	0.88	0.25	0.38	0.38	0.38	0.50
Alder Flycatcher		0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.02
Willow Flycatcher		0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Least Flycatcher		0.13	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.05
Eastern Phoebe		0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.25	0.05
Great Crested Flycatcher		0.00	0.00	0.00	0.13	0.13	0.13	0.00	0.13	0.07
Blue-headed Vireo	UCS	0.13	0.13	0.13	0.13	0.25	0.00	0.25	0.25	0.16
Red-eyed Vireo	UCS	1.13	1.75	1.75	1.63	1.75	2.00	1.75	2.13	1.73
Blue Jay		0.38	0.50	0.50	0.00	0.25	0.00	0.00	0.00	0.16
<i>American Crow</i>		0.38	0.75	0.75	0.63	0.38	0.63	1.00	0.13	0.55
Black-capped Chickadee	UCS	0.25	0.13	0.13	0.38	0.38	0.25	0.00	0.50	0.27
Tufted Titmouse		0.00	0.00	0.00	0.00	0.00	0.50	0.25	0.13	0.13
Red-breasted Nuthatch		0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.04
White-breasted Nuthatch		0.00	0.00	0.00	0.25	0.13	0.13	0.00	0.25	0.11
Brown Creeper		0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.02

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Saint-Gaudens NHS

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Winter Wren	UCS	0.00	0.00	0.00	0.25	0.13	0.13	0.13	0.13	0.11
Veery	RC RS UCS	0.38	1.38	1.38	0.50	0.88	0.75	0.88	0.38	0.73
Hermit Thrush		0.00	0.13	0.13	0.25	0.50	0.50	0.38	0.00	0.25
Wood Thrush	RC UCC	0.25	0.25	0.25	0.13	0.75	0.25	0.63	0.38	0.38
American Robin		0.13	0.50	0.50	0.50	0.38	0.25	0.25	0.25	0.32
Gray Catbird		0.25	0.13	0.13	0.13	0.13	0.00	0.00	0.13	0.11
Yellow Warbler		0.13	0.00	0.25	0.25	0.25	0.13	0.00	0.00	0.11
Chestnut-sided Warbler		0.25	0.13	0.00	0.13	0.13	0.00	0.13	0.00	0.09
Magnolia Warbler	UCS	0.00	0.13	0.00	0.00	0.00	0.00	0.13	0.00	0.04
Black-throated Green Warbler	RS UCS	0.50	0.38	1.00	1.00	0.88	0.63	0.38	0.63	0.63
Blackburnian Warbler	RS UCS	0.00	0.00	0.00	0.00	0.00	0.38	0.50	0.50	0.20
Pine Warbler		0.00	0.25	0.00	0.00	0.38	0.00	0.50	0.38	0.21
Black-and-white Warbler	RS UCS	0.13	0.13	0.13	0.00	0.00	0.00	0.13	0.13	0.07
American Redstart	RS UCS	0.13	0.00	0.00	0.25	0.13	0.13	0.38	0.25	0.18
Ovenbird	UCS	1.50	2.00	2.00	1.88	1.75	1.50	1.38	1.00	1.57
Northern Waterthrush		0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.02
Louisiana Waterthrush		0.25	0.13	0.13	0.00	0.13	0.00	0.13	0.38	0.14
Common Yellowthroat	UCS	0.25	0.25	0.25	0.13	0.25	0.38	0.13	0.13	0.21
Scarlet Tanager	RC	0.38	0.88	0.88	0.38	0.25	0.13	0.38	0.38	0.39
Song Sparrow	UCS	0.00	0.13	0.13	0.25	0.00	0.13	0.13	0.13	0.11
White-throated Sparrow		0.00	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.02
Dark-eyed Junco (Slate-colored Junco)		0.00	0.00	0.00	0.00	0.38	0.38	0.13	0.00	0.13
Rose-breasted Grosbeak		0.00	0.13	0.13	0.00	0.13	0.00	0.00	0.00	0.04
Red-winged Blackbird		0.25	0.25	0.25	0.38	0.38	0.25	0.00	0.25	0.25

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Saint-Gaudens NHS

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Baltimore Oriole		0.13	0.13	0.13	0.00	0.13	0.13	0.13	0.00	0.09
American Goldfinch		0.00	0.25	0.25	0.25	0.00	0.00	0.00	0.00	0.07
<i>Points Surveyed:</i>										
<i>Ave # Birds Per Point:</i>										
<i>Species Richness:</i>										
<i>Shannon Diversity:</i>										
		8	8	8	8	8	8	8	8	
		8.50	12.13	11.63	12.00	11.25	11.00	9.88	10.91	
		25	30	27	31	27	27	28	50	
		2.91	2.90	2.93	3.03	2.92	2.93	2.95		

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Saugus Iron Works NHS

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Canada Goose				0.00	0.00	0.67	0.00	1.00	1.00	0.44
<i>Mallard</i>				0.33	2.33	1.33	0.67	1.67	0.33	1.11
Double-crested Cormorant				0.00	0.00	0.00	0.00	0.00	0.33	0.06
Great Blue Heron				0.00	0.00	0.00	0.33	0.00	0.00	0.06
Snowy Egret				0.00	0.00	0.00	0.00	0.33	0.00	0.06
Black-crowned Night-Heron				0.00	0.33	0.67	0.00	0.00	0.33	0.22
Osprey				0.00	0.00	0.00	0.00	0.00	0.33	0.06
Red-tailed Hawk				0.00	0.00	0.33	0.00	0.00	0.00	0.06
Spotted Sandpiper				0.00	0.00	0.33	0.00	0.33	0.00	0.11
<i>Herring Gull</i>				0.33	0.67	0.67	0.67	0.67	0.33	0.56
Great Black-backed Gull				0.00	0.00	0.00	0.00	0.33	0.00	0.06
Rock Pigeon				0.33	0.33	0.67	0.00	0.67	0.33	0.39
Mourning Dove				0.33	0.00	0.00	0.00	0.00	0.33	0.11
Chimney Swift	CBSD RC			0.00	0.67	1.00	0.67	1.00	0.67	0.67
Belted Kingfisher	CBSD			0.33	0.00	0.00	0.00	0.33	0.00	0.11
Downy Woodpecker				0.67	0.00	0.33	0.00	0.00	0.33	0.22
Northern Flicker (Yellow-shafted Flicker)				0.33	0.00	0.33	0.00	0.33	0.33	0.22
Eastern Phoebe				0.00	0.67	0.00	0.00	0.33	0.33	0.22
Eastern Kingbird	RC			0.00	0.00	0.33	0.33	0.67	0.67	0.33
Warbling Vireo				0.00	0.00	0.33	0.33	0.33	1.00	0.33
Red-eyed Vireo				0.00	0.33	0.00	0.00	0.00	0.00	0.06
<i>Blue Jay</i>				0.67	0.33	0.33	1.67	0.33	0.33	0.61
American Crow				1.00	0.67	0.00	1.33	0.00	0.00	0.50
<i>Barn Swallow</i>				0.67	0.67	1.00	1.00	0.33	1.00	0.78

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Saugus Iron Works NHS

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Black-capped Chickadee		0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.06
Tufted Titmouse		0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
Carolina Wren		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.06
House Wren		0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.06
American Robin		0.67	1.00	1.67	1.00	1.67	1.00	0.67	0.33	0.89
Gray Catbird	UCS	0.67	0.67	0.67	0.67	0.67	0.33	0.67	0.00	0.50
European Starling		0.67	2.33	0.33	0.33	0.33	0.33	0.67	0.67	0.83
Yellow Warbler		0.00	0.00	0.33	0.00	0.33	0.00	0.33	0.00	0.11
Common Yellowthroat		0.33	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.11
Song Sparrow		1.00	2.00	3.00	3.00	3.00	1.33	1.33	2.00	1.78
Northern Cardinal		1.00	0.33	0.33	0.33	0.33	0.00	0.33	0.67	0.44
Red-winged Blackbird		0.33	2.33	2.33	2.33	2.33	3.00	1.33	1.67	1.83
Common Grackle		0.33	0.33	0.67	0.67	0.67	0.67	1.67	0.67	0.72
Brown-headed Cowbird		0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.67	0.17
Baltimore Oriole	RC	0.33	0.33	0.00	0.00	0.00	0.33	0.33	1.00	0.39
House Finch		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.06
American Goldfinch		0.00	0.33	0.33	0.33	0.33	0.33	0.00	0.33	0.22
House Sparrow		1.00	0.00	0.33	0.33	0.33	0.00	1.00	0.33	0.44
<i>Points Surveyed:</i>										
<i>Ave # Birds Per Point:</i>		3	3	3	3	3	3	3	3	
<i>Species Richness:</i>		11.67	17.00	18.67	14.67	17.33	17.00	16.06		
<i>Shannon Diversity:</i>		21	20	25	18	26	28	42		
		2.94	2.69	2.92	2.62	3.08	3.14			

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Saratoga NHP

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point)</i>										<i>Mean</i>
		2006	2007	2008	2009	2010	2011	2012	2013			
Canada Goose		0.16	0.05	0.08	0.00	0.02	0.04	0.05	0.05	0.06		
Wild Turkey		0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00		
Northern Bobwhite		0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01		
Great Blue Heron		0.12	0.05	0.00	0.02	0.02	0.00	0.02	0.02	0.03		
Green Heron		0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00		
Turkey Vulture		0.00	0.00	0.00	0.02	0.02	0.07	0.05	0.05	0.03		
Northern Harrier		0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01		
Sharp-shinned Hawk		0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00		
Cooper's Hawk		0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00		
Broad-winged Hawk		0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.01		
Red-tailed Hawk		0.04	0.00	0.00	0.00	0.05	0.00	0.05	0.05	0.02		
American Kestrel		0.16	0.00	0.04	0.05	0.10	0.22	0.07	0.10	0.09		
Killdeer		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.01		
American Woodcock		0.00	0.00	0.00	0.02	0.10	0.22	0.00	0.05	0.05		
Mourning Dove		0.24	0.60	0.43	0.27	0.49	0.48	0.28	0.59	0.42		
Black-billed Cuckoo	CBSD RC RS UCC UCS	0.16	0.00	0.04	0.02	0.00	0.00	0.00	0.00	0.03		
Yellow-billed Cuckoo	CBSD	0.04	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.01		
Ruby-throated Hummingbird		0.04	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.01		
Red-bellied Woodpecker		0.28	0.00	0.04	0.05	0.07	0.00	0.12	0.20	0.09		
Yellow-bellied Sapsucker		0.08	0.05	0.14	0.29	0.56	0.07	0.40	0.10	0.21		
Downy Woodpecker		0.00	0.10	0.20	0.05	0.12	0.22	0.16	0.05	0.11		
Hairy Woodpecker		0.00	0.00	0.00	0.00	0.10	0.07	0.02	0.02	0.03		
Northern Flicker (Yellow-shafted Flicker)		0.20	0.15	0.04	0.02	0.20	0.19	0.19	0.05	0.13		
Pileated Woodpecker		0.08	0.00	0.04	0.15	0.15	0.00	0.12	0.10	0.08		

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Saratoga NHP

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Eastern Wood-Pewee	RC	0.16	0.35	0.59	0.41	0.51	0.11	0.49	0.54	0.40
Acadian Flycatcher		0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Alder Flycatcher		0.00	0.05	0.08	0.00	0.00	0.00	0.00	0.00	0.02
Willow Flycatcher	UCS	0.08	0.00	0.16	0.00	0.02	0.04	0.07	0.02	0.05
Least Flycatcher	RC	0.00	0.00	0.08	0.02	0.00	0.00	0.00	0.00	0.01
Eastern Phoebe		0.00	0.05	0.08	0.02	0.10	0.04	0.07	0.02	0.05
Great Crested Flycatcher		0.20	0.55	0.35	0.22	0.20	0.04	0.26	0.10	0.24
Eastern Kingbird		0.48	0.10	0.16	0.29	0.68	0.63	0.37	0.20	0.36
Yellow-throated Vireo		0.00	0.05	0.02	0.00	0.02	0.00	0.02	0.00	0.01
Blue-headed Vireo		0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.01
Warbling Vireo		0.08	0.00	0.02	0.00	0.00	0.11	0.02	0.02	0.03
Red-eyed Vireo		0.16	0.50	0.49	0.22	0.39	0.07	0.33	0.17	0.29
Blue Jay		0.32	0.40	0.37	0.34	0.29	0.37	0.21	0.51	0.35
<i>American Crow</i>		<i>0.88</i>	<i>0.75</i>	<i>0.57</i>	<i>1.07</i>	<i>0.73</i>	<i>0.96</i>	<i>0.86</i>	<i>0.66</i>	<i>0.81</i>
Common Raven		0.04	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.01
Tree Swallow		0.28	0.40	0.20	0.05	0.66	1.04	0.53	0.15	0.41
Northern Rough-winged Swallow		0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.01
Barn Swallow		0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00
Black-capped Chickadee		0.40	0.70	0.47	0.49	0.37	0.30	0.44	0.29	0.43
Tufted Titmouse		0.52	0.30	0.31	0.02	0.12	0.04	0.14	0.07	0.19
Red-breasted Nuthatch		0.00	0.00	0.04	0.00	0.02	0.00	0.00	0.05	0.01
White-breasted Nuthatch		0.16	0.15	0.06	0.17	0.27	0.07	0.16	0.15	0.15
Brown Creeper		0.00	0.05	0.14	0.07	0.10	0.00	0.14	0.02	0.07
House Wren		0.32	0.00	0.02	0.05	0.20	0.00	0.07	0.12	0.10

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Saratoga NHP

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Winter Wren		0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Blue-gray Gnatcatcher		0.00	0.00	0.06	0.02	0.00	0.04	0.00	0.00	0.02
Eastern Bluebird		0.32	0.00	0.02	0.00	0.24	0.41	0.30	0.12	0.18
Veery	RC	0.04	0.10	0.18	0.27	0.37	0.04	0.19	0.12	0.16
Hermit Thrush		0.00	0.10	0.10	0.20	0.12	0.00	0.05	0.05	0.08
Wood Thrush	RC UCC	0.16	0.50	0.39	0.20	0.34	0.07	0.16	0.07	0.24
<i>American Robin</i>		0.44	0.90	0.63	0.37	0.51	0.96	0.33	0.66	0.60
Gray Catbird		0.20	0.05	0.16	0.17	0.34	0.41	0.23	0.66	0.28
Northern Mockingbird		0.00	0.00	0.00	0.02	0.10	0.11	0.00	0.00	0.03
Brown Thrasher		0.08	0.00	0.00	0.00	0.00	0.00	0.02	0.10	0.03
European Starling		0.40	0.00	0.00	0.17	0.07	0.04	0.00	0.00	0.09
Cedar Waxwing	UCS	0.36	0.60	0.22	0.22	0.34	0.70	0.77	0.22	0.43
Blue-winged Warbler	RC RS UCS	0.20	0.20	0.20	0.07	0.10	0.22	0.05	0.22	0.16
Golden-winged Warbler	RC UCC	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Yellow Warbler		0.32	0.10	0.16	0.12	0.24	0.33	0.07	0.05	0.17
Chestnut-sided Warbler		0.08	0.10	0.20	0.02	0.17	0.00	0.12	0.00	0.09
Yellow-rumped Warbler (Myrtle Warbler)		0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Black-throated Green Warbler		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
Prairie Warbler		0.08	0.15	0.06	0.00	0.24	0.00	0.19	0.00	0.09
Black-and-white Warbler		0.00	0.00	0.04	0.02	0.02	0.00	0.00	0.00	0.01
American Redstart		0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.05	0.03
<i>Overbird</i>		0.24	1.15	0.82	0.44	0.63	0.04	0.84	0.59	0.59
Northern Waterthrush		0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Louisiana Waterthrush		0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.01

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Saratoga NHP

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
<i>Common Yellowthroat</i>		0.84	0.80	0.94	1.07	1.41	1.48	1.58	1.32	1.18
<i>Scarlet Tanager</i>		0.20	0.20	0.29	0.17	0.22	0.07	0.16	0.15	0.18
Eastern Towhee	RC	0.20	0.30	0.27	0.22	0.39	0.56	0.65	0.90	0.44
<i>Chipping Sparrow</i>		0.40	0.50	0.27	0.32	0.29	0.26	0.37	0.02	0.31
Field Sparrow	CBSD RC	1.08	0.55	0.67	0.76	1.27	1.26	0.93	1.59	1.01
Vesper Sparrow	RC	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.02	0.01
<i>Savannah Sparrow</i>		0.08	0.00	0.04	0.05	0.00	0.11	0.00	0.07	0.04
Song Sparrow	UCS	1.84	1.20	0.65	1.05	0.95	1.48	1.21	0.68	1.13
<i>Northern Cardinal</i>		0.28	0.15	0.24	0.17	0.10	0.19	0.19	0.02	0.17
<i>Rose-breasted Grosbeak</i>		0.08	0.05	0.12	0.07	0.00	0.04	0.02	0.10	0.06
<i>Indigo Bunting</i>		0.04	0.00	0.06	0.00	0.00	0.00	0.02	0.02	0.02
<i>Bobolink</i>		1.48	0.60	0.65	1.71	3.15	9.19	2.35	3.83	2.87
Red-winged Blackbird		1.72	0.70	1.82	2.05	3.07	5.41	4.67	3.83	2.91
<i>Eastern Meadowlark</i>		0.64	0.15	0.43	1.05	0.80	1.26	0.86	0.68	0.73
<i>Common Grackle</i>		0.12	0.00	0.00	0.02	0.07	0.04	0.02	0.00	0.03
<i>Brown-headed Cowbird</i>		0.00	0.05	0.06	0.05	0.10	0.04	0.16	0.00	0.06
<i>Orchard Oriole</i>		0.12	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.02
Baltimore Oriole	RC RS UCS	0.44	0.25	0.16	0.17	0.29	0.22	0.00	0.02	0.19
<i>Purple Finch</i>		0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
American Goldfinch	UCS	0.64	1.15	0.94	0.76	1.12	1.22	0.81	0.68	0.92

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Saratoga NHP

Common Name	PIF Codes	Relative Abundance (birds per point)										Mean
		2006	2007	2008	2009	2010	2011	2012	2013			
Points Surveyed:		25	20	51	41	41	27	43	41			
Ave # Birds Per Point:		19.04	16.20	16.27	16.49	23.80	31.74	23.23	21.46	21.03		
Species Richness:		60	48	64	57	59	53	61	60	92		
Shannon Diversity:		3.59	3.45	3.61	3.33	3.41	2.78	3.26	3.06			

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Vanderbilt Mansion NHS

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Canada Goose		0.14	0.29	0.29	0.14	0.71	0.86	0.00	0.14	0.32
Mallard		0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.02
Mourning Dove		0.00	0.00	0.14	0.14	0.00	0.00	0.29	0.14	0.09
Black-billed Cuckoo	CBSD RC RS UCC UCS	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Great Horned Owl		0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.02
Barred Owl		0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.02
Red-bellied Woodpecker		0.43	1.00	0.14	0.57	1.14	0.57	0.57	1.00	0.68
Downy Woodpecker		0.29	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.07
Hairy Woodpecker		0.00	0.29	0.00	0.29	0.14	0.00	0.00	0.00	0.09
Northern Flicker (Yellow-shafted Flicker)		0.57	0.14	0.00	0.00	0.14	0.00	0.00	0.00	0.11
Pileated Woodpecker		0.14	0.00	0.14	0.00	0.14	0.29	0.00	0.29	0.13
Eastern Wood-Pewee	RC	0.29	0.00	0.00	0.29	0.00	0.14	0.00	0.00	0.09
Eastern Phoebe		0.14	0.00	0.29	0.14	0.00	0.00	0.00	0.00	0.07
Great Crested Flycatcher		0.14	0.71	0.57	0.86	1.14	1.00	0.14	0.43	0.63
Red-eyed Vireo		0.71	1.29	0.57	0.86	1.14	1.14	0.71	0.29	0.84
Blue Jay		0.29	0.43	0.00	0.00	0.00	0.00	0.00	0.29	0.13
American Crow		0.86	0.43	0.29	0.43	0.43	0.86	1.00	0.29	0.57
Fish Crow		0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.07
Tufted Titmouse		0.71	0.57	0.29	1.29	1.14	1.57	0.14	0.43	0.77
White-breasted Nuthatch		0.00	0.71	0.00	0.57	0.14	0.29	0.29	0.29	0.29
Carolina Wren		0.00	0.00	0.57	0.00	0.14	0.00	0.00	0.00	0.09
House Wren		0.00	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.04
Eastern Bluebird		0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.02
Wood Thrush	RC UCC	0.86	1.14	0.57	0.29	1.00	0.00	1.57	0.29	0.71

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Vanderbilt Mansion NHS

Common Name	PIF Codes	Relative Abundance (birds per point)										Mean
		2006	2007	2008	2009	2010	2011	2012	2013			
American Robin		0.00	0.00	0.29	0.57	0.14	0.43	0.57	0.86	0.36		
American Redstart		0.14	0.29	0.00	0.29	0.00	0.00	0.00	0.00	0.09		
Worm-eating Warbler		0.00	0.29	0.14	0.14	0.14	0.00	0.00	0.14	0.11		
Ovenbird		0.00	0.14	0.29	0.00	0.14	0.00	0.14	0.14	0.11		
Louisiana Waterthrush		0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.02		
Common Yellowthroat		0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02		
Scarlet Tanager		0.43	0.00	0.14	0.43	0.00	0.00	0.00	0.14	0.14		
Chipping Sparrow		0.29	0.14	0.14	0.14	0.00	0.00	0.14	0.00	0.11		
Northern Cardinal		1.14	0.86	0.86	0.86	1.00	0.86	0.86	0.57	0.88		
Rose-breasted Grosbeak		0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02		
Indigo Bunting		0.29	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.05		
Red-winged Blackbird		0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.14	0.05		
Common Grackle		0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.02		
Points Surveyed:		7	7	7	7	7	7	7	7			
Ave # Birds Per Point:		8.43	9.00	6.14	8.29	9.29	8.14	7.00	6.29	7.82		
Species Richness:		22	18	20	18	19	12	15	18	37		
Shannon Diversity:		2.84	2.64	2.80	2.67	2.56	2.28	2.38	2.69			

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Weir Farm NHS

Common Name	PIF Codes	Relative Abundance (birds per point)								
		2006	2007	2008	2009	2010	2011	2012	2013	Mean
Red-shouldered Hawk	RC	0.00			0.00	0.00		0.40	0.00	0.08
Red-tailed Hawk		0.00			0.20	0.00		0.00	0.00	0.04
Mourning Dove		0.00			0.00	0.20		0.00	0.00	0.04
Red-bellied Woodpecker		0.00			0.20	0.40		0.00	0.00	0.12
Downy Woodpecker		0.20			0.60	1.00		0.40	0.20	0.48
Hairy Woodpecker		0.00			0.00	0.00		0.20	0.00	0.04
Northern Flicker (Yellow-shafted Flicker)		0.20			0.00	0.20		0.00	0.00	0.08
Eastern Wood-Pewee		0.00			0.40	0.20		0.20	0.00	0.16
Eastern Phoebe		0.20			0.00	0.00		0.60	0.00	0.16
Great Crested Flycatcher		0.20			0.00	0.40		0.00	0.20	0.16
Yellow-throated Vireo	RC	0.20			0.00	0.00		0.00	0.00	0.04
Warbling Vireo		0.20			0.00	0.00		0.00	0.00	0.04
Red-eyed Vireo		0.20			0.40	1.00		0.00	0.00	0.32
Blue Jay		0.40			0.20	0.00		0.20	0.00	0.16
American Crow		0.80			0.60	0.40		0.80	0.00	0.52
Black-capped Chickadee		0.00			0.20	0.60		0.00	0.00	0.16
Tufted Titmouse		1.20			1.20	1.20		0.80	0.60	1.00
White-breasted Nuthatch		0.20			0.20	1.20		0.80	0.60	0.60
Carolina Wren		0.20			0.00	0.00		0.00	0.00	0.04
House Wren		0.40			0.20	0.00		0.00	0.00	0.12
Wood Thrush	RC UCC	0.00			0.20	0.00		0.20	0.00	0.08
American Robin		0.00			0.20	0.40		1.00	0.40	0.40
Gray Catbird		0.00			0.20	0.80		0.60	1.00	0.52
Yellow Warbler	UCS	0.00			0.00	0.00		0.20	0.00	0.04

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Weir Farm NHS

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Blackpoll Warbler		0.00			0.20	0.00		0.00	0.00	0.04
American Redstart		0.20			0.00	0.00		0.00	0.00	0.04
Ovenbird		0.20			0.00	0.00		0.00	0.00	0.04
Scarlet Tanager	RC	0.00			0.20	0.00		0.00	0.00	0.04
Chipping Sparrow		0.20			0.00	0.40		0.60	0.00	0.24
Song Sparrow		0.00			0.20	0.40		0.20	0.00	0.16
Northern Cardinal		0.80			0.40	0.40		0.20	0.20	0.40
Red-winged Blackbird		0.20			0.00	0.00		0.00	0.00	0.04
Common Grackle		0.00			0.20	1.20		0.00	0.00	0.28
Baltimore Oriole	RC	0.20			0.00	0.00		0.00	0.20	0.08
House Finch		0.00			0.00	0.00		0.00	0.40	0.08
American Goldfinch		0.00			0.00	0.20		0.20	0.00	0.08
Points Surveyed:										
Ave # Birds Per Point:		5			5	5		5	5	
		6.40			6.20	10.60		7.60	3.80	6.92
Species Richness:		19			19	18		17	9	36
Shannon Diversity:		2.70			2.74	2.71		2.65	2.03	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B—Site Summaries

This appendix contains the species list for each study site (when more than one site was surveyed within a park), and the relative abundance (birds per point) of each species for each year. It only includes data for the first survey of each point in a given year, in order to promote more consistent comparisons between years and to avoid artificially inflating abundances due to counting the same individuals in repeat visits. Species in boldface are Partners in Flight (PIF) priority species, and species in italics are the 10 most common species for each park. There will occasionally be more than 10 italicized species, if multiple species have the same abundance.

Beginning with the 2012 report, we have included the PIF Priority Species codes. If these tables are compared with those from previous years, you will note an increase in the number of PIF Priority species designated for each site. This is due to the fact that we are now including “stewardship” species, in addition to those of regional or USA/Canada concern, as well as relatively common species that are exhibiting significant population declines. For more information about the PIF Species Assessment, go to <http://pif.rmbo.org/>.

This appendix also lists the number of points surveyed per site each year, the number of birds detected per point count, the species richness, and the Shannon diversity index for each site for each year.

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Schoodic

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Spruce Grouse		0.00				0.17	0.00		0.00	0.04
Herring Gull		0.00				0.00	0.17		0.00	0.04
Downy Woodpecker		0.00				0.33	0.00		0.00	0.08
Hairy Woodpecker	UCS					0.17	0.00		0.00	0.21
Northern Flicker (Yellow-shafted Flicker)		0.00				0.00	0.00		0.33	0.08
Yellow-bellied Flycatcher		0.00				0.83	0.50		0.67	0.50
Least Flycatcher		0.17				0.00	0.00		0.00	0.04
Great Crested Flycatcher		0.17				0.00	0.00		0.00	0.04
Blue-headed Vireo	UCS	0.00				0.33	1.00		0.17	0.38
Red-eyed Vireo	UCS	0.00				0.67	0.00		0.00	0.17
American Crow		0.17				0.83	0.17		0.50	0.42
Black-capped Chickadee	UCS	0.00				0.50	0.17		0.17	0.21
Boreal Chickadee	CBSD RC	1.00				0.00	0.00		0.00	0.25
Red-breasted Nuthatch		0.17				1.50	0.67		0.17	0.63
Brown Creeper		0.00				0.50	0.00		0.33	0.21
Winter Wren	UCS	0.00				1.17	1.17		1.17	0.88
Golden-crowned Kinglet		0.00				1.50	0.67		0.83	0.75
Ruby-crowned Kinglet		0.33				0.17	0.17		0.00	0.17
Veery	RC RS UCS	0.00				0.17	0.00		0.00	0.04
Swainson's Thrush		0.00				0.17	0.83		0.50	0.38
Hermit Thrush		0.67				0.67	0.67		0.50	0.63
Wood Thrush	RC UCC	0.17				0.00	0.00		0.00	0.04
American Robin		0.33				0.00	0.00		0.00	0.08
Cedar Waxwing	UCS	0.00				0.00	0.00		0.17	0.04
Nashville Warbler		0.00				0.33	0.50		0.00	0.21

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Schoodic

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Chestnut-sided Warbler		0.33			0.00	0.00	0.00		0.00	0.08
<i>Magnolia Warbler</i>	UCS	0.00			1.00	0.50	0.50		0.83	0.58
Black-throated Blue Warbler	RS UCS	0.33			0.00	0.00	0.00		0.00	0.08
<i>Yellow-rumped Warbler (Myrtle Warbler)</i>		0.17			0.67	0.50	0.50		1.00	0.58
Black-throated Green Warbler	RS UCS	1.00			3.33	1.50	1.50		1.50	1.83
Blackburnian Warbler	RS UCS	0.00			0.00	0.00	0.00		0.17	0.04
Palm Warbler		0.00			0.00	0.17	0.17		0.00	0.04
Black-and-white Warbler	RS UCS	0.17			0.00	0.00	0.00		0.00	0.04
American Redstart	RS UCS	0.00			0.17	0.00	0.00		0.00	0.04
Common Yellowthroat	UCS	0.00			0.00	0.17	0.17		0.33	0.13
Canada Warbler	RC RS UCC UCS	0.00			0.00	0.00	0.00		0.17	0.04
Eastern Towhee		0.17			0.00	0.00	0.00		0.00	0.04
White-throated Sparrow		0.00			0.67	0.33	0.33		0.00	0.25
<i>Dark-eyed Junco (Slate-colored Junco)</i>		0.33			1.50	0.33	0.33		1.00	0.79
Purple Finch	RS UCS	0.00			0.00	0.17	0.17		0.17	0.08
White-winged Crossbill		0.00			0.33	0.00	0.00		0.00	0.08
Points Surveyed:										
		6			6	6	6		6	
Ave # Birds Per Point:										
		6.33			17.67	10.33	10.67		10.67	11.25
Species Richness:										
		17			24	20	20		20	41
Shannon Diversity:										
		2.60			2.83	2.76	2.74		2.74	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Giant Slide Trail

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Ruffed Grouse	CBSD	0.00	0.00	0.00	0.00		0.11			0.03
Common Loon		0.00	0.00	0.10	0.00		0.00			0.03
Mourning Dove		0.44	0.30	0.30	0.30		0.00			0.26
Hairy Woodpecker	UCS	0.11	0.00	0.00	0.00		0.00			0.03
Pileated Woodpecker		0.11	0.10	0.10	0.10		0.22			0.13
Alder Flycatcher		0.11	0.00	0.00	0.00		0.00			0.03
Least Flycatcher		0.00	0.00	0.00	0.20		0.00			0.05
Blue-headed Vireo	UCS	0.78	0.50	0.50	0.60		0.00			0.47
Blue Jay		0.44	0.10	0.10	0.50		0.00			0.26
American Crow		0.33	0.50	0.50	0.30		0.00			0.28
Common Raven		0.22	0.00	0.00	0.10		0.00			0.08
Black-capped Chickadee	UCS	0.11	0.60	0.60	0.90		0.33			0.49
Red-breasted Nuthatch		0.67	0.40	0.40	0.60		0.11			0.44
Brown Creeper		0.11	0.40	0.40	0.20		0.00			0.18
Winter Wren	UCS	0.22	0.10	0.10	0.00		0.00			0.08
Golden-crowned Kinglet		0.67	1.40	1.40	0.70		0.11			0.72
Veery	RC RS UCS	0.00	0.00	0.00	0.00		0.11			0.03
Hermit Thrush		0.22	0.10	0.10	1.00		0.11			0.36
American Robin		0.89	0.70	0.70	0.60		0.22			0.60
Brown Thrasher	RC	0.11	0.00	0.00	0.00		0.00			0.03
Cedar Waxwing	UCS	0.33	0.10	0.10	0.30		0.22			0.24
Black-throated Blue Warbler	RS UCS	0.00	0.70	0.70	0.50		0.22			0.36
Yellow-rumped Warbler (Myrtle Warbler)		0.11	0.30	0.30	0.70		0.22			0.33
Black-throated Green Warbler	RS UCS	2.78	2.90	2.90	2.20		1.44			2.33
Blackburnian Warbler	RS UCS	0.33	0.50	0.50	0.50		0.00			0.33

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Giant Slide Trail

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Blackpoll Warbler		0.00	0.00	0.00	0.00		0.11			0.03
<i>Black-and-white Warbler</i>	<i>RS UCS</i>	0.33	0.10	0.10	0.20		1.22			0.46
<i>Ovenbird</i>	<i>UCS</i>	1.11	2.30	1.70	1.70		1.56			1.67
Dark-eyed Junco (Slate-colored Junco)		0.11	0.10	0.10	0.50		0.00			0.18
Purple Finch	<i>RS UCS</i>	0.11	0.10	0.10	0.10		0.00			0.08
Pine Siskin	<i>CBSD</i>	0.56	1.00	1.00	0.10		0.00			0.41
<i>Points Surveyed:</i>										
<i>Ave # Birds Per Point:</i>		9	10	10	10		9			
<i>Species Richness:</i>		11.33	13.40	12.90	12.90		6.33			10.99
<i>Shannon Diversity:</i>		25	23	23	23		15			31
		2.75	2.59	2.81	2.81		2.17			

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Witch Hole Pond

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Wood Duck		0.00			0.00		0.00	0.00	0.11	0.03
Ruffed Grouse	CBSD	0.00			0.00		0.11	0.00	0.00	0.03
Common Loon		0.00			0.00		0.00	0.00	0.11	0.03
Broad-winged Hawk	RS UCS	0.00			0.00		0.00	0.11	0.00	0.03
<i>Mourning Dove</i>		<i>0.89</i>			<i>0.33</i>		<i>0.22</i>	<i>0.22</i>	<i>0.22</i>	<i>0.42</i>
Belted Kingfisher	CBSD RC	0.00			0.00		0.00	0.00	0.11	0.03
Northern Flicker (Yellow-shafted Flicker)		0.11			0.11		0.00	0.00	0.00	0.06
Pileated Woodpecker		0.00			0.00		0.00	0.11	0.11	0.06
Eastern Wood-Pewee	RC	0.44			0.00		0.00	0.00	0.11	0.14
Alder Flycatcher		0.00			0.11		0.11	0.11	0.00	0.06
Least Flycatcher		0.00			0.00		0.00	0.00	0.11	0.03
Eastern Phoebe		0.11			0.00		0.00	0.00	0.00	0.03
Great Crested Flycatcher		0.67			0.22		0.00	0.00	0.00	0.22
Blue-headed Vireo	UCS	0.33			0.22		0.44	0.44	0.22	0.31
Warbling Vireo		0.00			0.11		0.00	0.00	0.11	0.06
Red-eyed Vireo	UCS	1.22			0.22		0.22	0.44	0.33	0.56
Blue Jay		0.44			0.00		0.00	0.00	0.22	0.17
<i>American Crow</i>		<i>0.11</i>			<i>0.44</i>		<i>0.11</i>	<i>0.11</i>	<i>0.22</i>	<i>0.22</i>
Black-capped Chickadee	UCS	0.89			0.00		0.00	0.11	0.11	0.28
Red-breasted Nuthatch		0.22			0.00		0.00	0.22	0.22	0.17
Brown Creeper		0.00			0.11		0.11	0.22	0.00	0.08
Golden-crowned Kinglet		0.00			0.00		0.00	0.11	0.22	0.08
Veery	RC RS UCS	0.11			0.00		0.00	0.00	0.11	0.06
Hermit Thrush		0.78			0.22		0.22	0.33	1.33	0.67
<i>American Robin</i>		<i>0.33</i>			<i>0.22</i>		<i>0.22</i>	<i>0.33</i>	<i>0.11</i>	<i>0.25</i>

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Witch Hole Pond

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
<i>Relative Abundance (birds per point)</i>										
Cedar Waxwing	UCS	0.00			0.00		0.00	0.00	0.11	0.03
Nashville Warbler		0.11			0.22		0.22	0.22	0.00	0.14
Magnolia Warbler	UCS	0.00			0.11		0.11	0.00	0.00	0.03
Yellow-rumped Warbler (Myrtle Warbler)		0.78			0.89		0.89	0.11	1.11	0.72
Black-throated Green Warbler	RS UCS	1.89			1.11		1.11	1.78	1.22	1.50
Blackburnian Warbler	RS UCS	0.00			0.00		0.00	0.11	0.00	0.03
Pine Warbler		0.00			0.00		0.00	0.33	0.22	0.14
Black-and-white Warbler	RS UCS	0.33			0.22		0.22	0.11	0.11	0.19
Ovenbird	UCS	1.33			0.44		0.44	0.78	1.11	0.92
Common Yellowthroat	UCS	0.00			0.11		0.11	0.11	0.00	0.06
Scarlet Tanager	RC	0.00			0.00		0.00	0.11	0.00	0.03
Song Sparrow	UCS	0.00			0.00		0.00	0.11	0.00	0.03
Swamp Sparrow		0.00			0.00		0.00	0.11	0.11	0.06
Dark-eyed Junco (Slate-colored Junco)		0.11			0.00		0.00	0.00	0.11	0.06
Rose-breasted Grosbeak		0.00			0.00		0.00	0.11	0.00	0.03
Baltimore Oriole		0.00			0.11		0.11	0.00	0.00	0.03
Pine Siskin	CBSD	0.11			0.00		0.00	0.00	0.00	0.03
American Goldfinch		0.22			0.00		0.00	0.33	0.00	0.14
<i>Points Surveyed:</i>										
<i>Ave # Birds Per Point:</i>										
<i>Species Richness:</i>										
<i>Shannon Diversity:</i>										
		9			9		9	9	9	
		11.56			5.67		5.67	7.22	8.22	8.17
		22			20		20	26	26	43
		2.73			2.68		2.68	2.82	2.75	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Seal Cove Center

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Common Loon		0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.02
Herring Gull		0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.02
Mourning Dove		1.00	1.33	1.33	0.17	0.00	0.00	0.00	0.00	0.36
Downy Woodpecker		0.00	0.00	0.00	0.00	0.17	0.17	0.00	0.17	0.07
Hairy Woodpecker	UCS	0.17	0.00	0.00	0.17	0.83	0.33	0.17	0.00	0.24
Pileated Woodpecker		0.50	0.00	0.00	0.00	0.00	0.17	0.17	0.00	0.12
Yellow-bellied Flycatcher		0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.33	0.07
Least Flycatcher		0.50	0.33	0.33	0.50	0.50	0.00	0.00	0.00	0.26
Blue-headed Vireo	UCS	0.33	1.00	1.00	0.67	0.33	0.50	0.17	0.17	0.45
Blue Jay		0.00	0.17	0.17	0.00	0.17	0.00	0.00	0.17	0.07
American Crow		0.17	0.00	0.00	0.00	0.00	0.17	0.17	0.00	0.07
Common Raven		0.50	0.00	0.00	1.00	0.50	0.33	0.33	0.00	0.38
Black-capped Chickadee	UCS	0.33	0.17	0.17	0.00	0.00	0.17	0.17	0.00	0.12
Red-breasted Nuthatch		0.50	0.17	0.17	0.00	0.33	0.67	1.33	0.67	0.52
Brown Creeper		0.17	0.00	0.00	0.00	0.33	0.17	0.00	0.17	0.12
Winter Wren	UCS	0.33	0.17	0.17	0.00	0.50	0.67	0.00	0.33	0.29
Golden-crowned Kinglet		0.17	0.50	0.50	0.00	0.00	0.50	0.00	0.33	0.21
Swainson's Thrush		0.33	0.00	0.00	0.00	0.33	0.33	0.67	0.00	0.24
Hermit Thrush		0.50	0.00	0.00	0.00	0.33	0.17	0.83	0.17	0.29
Magnolia Warbler	UCS	0.33	0.17	0.17	0.00	0.00	0.00	0.00	0.00	0.07
Yellow-rumped Warbler (Myrtle Warbler)		0.00	0.00	0.00	0.17	0.00	0.00	0.17	0.17	0.07
Black-throated Green Warbler	RS UCS	1.33	1.00	1.00	1.00	1.17	1.33	1.00	1.00	1.12
Blackburnian Warbler	RS UCS	0.17	0.33	0.33	0.17	0.00	0.17	0.33	0.50	0.24
Pine Warbler		0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.02
Ovenbird	UCS	0.33	0.50	0.50	1.83	0.50	1.17	0.50	0.67	0.79

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Seal Cove Center

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Dark-eyed Junco (Slate-colored Junco)		0.17	0.17	0.17	0.33	0.17	0.17	0.17	0.17	0.19
Purple Finch	RS UCS	0.50	0.17	0.17	0.50	0.17	0.00	0.17	0.00	0.21
White-winged Crossbill		0.00	0.00	0.00	0.00	0.17	0.00	0.17	0.00	0.05
Pine Siskin	CBSD	0.00	0.33	0.33	0.00	0.00	0.00	0.00	0.17	0.07
<i>Points Surveyed:</i>										
<i>Ave # Birds Per Point:</i>										
<i>Species Richness:</i>										
<i>Shannon Diversity:</i>										
		6	6	6	6	6	6	6	6	
		8.33	6.50	6.67	6.67	6.67	7.33	6.67	5.17	6.76
		20	15	15	12	17	18	17	15	29
		2.80	2.41	2.41	2.15	2.64	2.60	2.51	2.49	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Seal Cove East

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Herring Gull		0.14	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.04
Mourning Dove		1.29	0.43	0.14	0.14	0.29	0.14	0.57	0.71	0.51
Barred Owl		0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.02
Ruby-throated Hummingbird		0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.02
Downy Woodpecker		0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.02
Hairy Woodpecker	UCS	0.00	0.00	0.00	0.43	0.14	0.00	0.14	0.00	0.10
Northern Flicker (Yellow-shafted Flicker)		0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.02
Pileated Woodpecker		0.14	0.14	0.14	0.00	0.29	0.14	0.00	0.14	0.12
Least Flycatcher		0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.02
Eastern Phoebe		0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.02
Blue-headed Vireo	UCS	0.14	0.43	0.43	0.43	0.14	0.14	0.14	0.14	0.22
Red-eyed Vireo	UCS	0.00	0.14	0.14	0.00	0.14	0.00	0.00	0.00	0.04
Blue Jay		0.14	0.29	0.29	0.00	0.14	0.29	0.43	0.14	0.20
American Crow		0.86	0.86	0.86	0.71	1.57	0.29	0.14	0.86	0.76
Common Raven		0.57	0.29	0.29	0.29	0.29	0.43	0.00	0.00	0.27
Black-capped Chickadee	UCS	0.29	0.14	0.14	0.14	0.14	0.14	0.00	0.57	0.20
Red-breasted Nuthatch		0.71	0.14	0.14	0.43	0.86	0.43	0.57	0.43	0.51
Brown Creeper		0.00	0.57	0.57	0.43	0.29	0.14	0.14	0.00	0.22
Winter Wren	UCS	0.43	0.43	0.43	0.14	0.43	0.43	0.14	0.71	0.39
Golden-crowned Kinglet		0.43	0.29	0.29	0.57	0.14	1.00	0.14	0.57	0.45
Swainson's Thrush		0.29	0.14	0.14	0.00	0.00	0.14	0.14	0.43	0.16
Hermit Thrush		0.29	0.00	0.00	0.57	0.14	0.14	0.29	0.14	0.22
American Robin		0.57	0.00	0.00	0.29	0.43	0.29	0.29	1.14	0.43
Northern Parula	UCS	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.06
Magnolia Warbler	UCS	0.29	0.43	0.43	0.00	0.14	0.43	0.29	0.14	0.24

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Seal Cove East

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Black-throated Blue Warbler	RS UCS		0.00	0.00	0.43	0.00	0.00	0.14	0.00	0.08
<i>Yellow-rumped Warbler (Myrtle Warbler)</i>			0.29	0.57	0.57	0.71	0.14	0.14	0.00	0.35
Black-throated Green Warbler	RS UCS		1.43	1.14	0.71	1.71	1.14	1.29	1.43	1.27
Blackburnian Warbler	RS UCS		0.43	0.29	0.14	0.29	0.29	0.14	0.14	0.24
<i>Blackpoll Warbler</i>			0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.02
Ovenbird	UCS		1.14	1.00	1.00	0.86	0.43	0.71	0.71	0.84
Common Yellowthroat	UCS		0.00	0.14	0.00	0.00	0.14	0.14	0.14	0.08
Song Sparrow	UCS		0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.02
<i>Swamp Sparrow</i>			0.00	0.00	0.29	0.00	0.00	0.14	0.14	0.08
<i>Dark-eyed Junco (Slate-colored Junco)</i>			0.43	0.29	0.71	0.71	0.57	0.86	0.29	0.55
<i>Northern Cardinal</i>			0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.02
<i>Red-winged Blackbird</i>			0.14	0.29	0.14	0.00	0.14	0.14	0.29	0.16
<i>Common Grackle</i>			0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Purple Finch	RS UCS		0.14	0.14	0.14	0.43	0.00	0.00	0.29	0.16
Pine Siskin	CBSD		0.43	0.43	0.00	0.14	0.14	0.00	0.00	0.16
<i>American Goldfinch</i>			0.00	0.00	0.00	0.00	0.29	0.00	0.43	0.10
Points Surveyed:										
Ave # Birds Per Point:										
Species Richness:										
Shannon Diversity:										
		7	7	7	7	7	7	7	7	
		11.29	9.14	9.14	10.86	8.14	7.14	10.43		9.45
		25	24	24	26	26	22	24		41
		2.94	2.96	2.99	2.88	3.00	2.77	2.91		

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Seal Cove West

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Ruffed Grouse	CBSD						0.00	0.17	0.50	0.22
Osprey							0.00	0.00	0.17	0.06
Herring Gull							0.20	0.00	0.00	0.07
Mourning Dove							1.40	0.00	0.17	0.52
Hairy Woodpecker	UCS						0.00	0.50	0.17	0.22
Northern Flicker (Yellow-shafted Flicker)							0.20	0.17	0.33	0.23
Eastern Wood-Pewee	RC						0.20	0.00	0.00	0.07
Least Flycatcher							0.00	0.17	0.00	0.06
Blue-headed Vireo	UCS						0.00	0.33	0.33	0.22
Red-eyed Vireo	UCS						0.00	0.17	0.33	0.17
American Crow							0.60	0.00	0.17	0.26
Common Raven							0.20	0.00	0.00	0.07
Black-capped Chickadee	UCS						0.60	0.17	0.50	0.42
Red-breasted Nuthatch							0.20	0.33	0.00	0.18
Brown Creeper							0.00	0.50	0.00	0.17
Winter Wren	UCS						0.20	0.00	0.17	0.12
Golden-crowned Kinglet							0.00	0.67	0.33	0.33
Ruby-crowned Kinglet							0.00	0.00	0.17	0.06
Swainson's Thrush							1.20	0.83	0.67	0.90
Hermit Thrush							0.00	0.67	1.17	0.61
American Robin							0.00	0.17	0.17	0.11
Northern Parula	UCS						0.00	0.00	0.17	0.06
Magnolia Warbler	UCS						0.20	0.17	0.67	0.34
Black-throated Blue Warbler	RS UCS						0.20	0.17	0.33	0.23
Yellow-rumped Warbler (Myrtle Warbler)							0.20	0.17	0.33	0.23

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Seal Cove West

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
<i>Relative Abundance (birds per point)</i>										
Black-throated Green Warbler	RS UCS						0.40	1.50	1.67	1.19
Blackburnian Warbler	RS UCS						0.20	0.17	0.00	0.12
Black-and-white Warbler	RS UCS						0.00	0.33	0.50	0.28
Ovenbird	UCS						1.00	1.00	1.50	1.17
Song Sparrow	UCS						0.00	0.17	0.00	0.06
White-throated Sparrow							0.00	0.17	0.33	0.17
Dark-eyed Junco (Slate-colored Junco)							0.00	0.33	0.33	0.22
Purple Finch	RS UCS						0.20	0.00	0.00	0.07
Pine Siskin	CBSD						0.00	0.17	0.00	0.06
<i>Points Surveyed:</i>										
<i>Ave # Birds Per Point:</i>										
<i>Species Richness:</i>										
<i>Shannon Diversity:</i>										
							5	6	6	
							7.40	9.17	11.17	9.24
							17	24	24	34
							2.52	2.88	2.88	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Youngs Mtn

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Mourning Dove				0.00					0.29	0.14
Downy Woodpecker				0.14					0.00	0.07
Hairy Woodpecker	UCS			0.00					0.14	0.07
Northern Flicker (Yellow-shafted Flicker)				0.00					0.14	0.07
Eastern Wood-Pewee	RC			0.29					0.14	0.21
Least Flycatcher				0.00					0.14	0.07
Great Crested Flycatcher				0.29					0.00	0.14
Red-eyed Vireo	UCS			0.57					0.86	0.71
Blue Jay				1.14					0.14	0.64
American Crow				0.00					0.29	0.14
Black-capped Chickadee	UCS			1.29					0.14	0.71
Red-breasted Nuthatch				0.00					0.14	0.07
White-breasted Nuthatch				0.00					0.14	0.07
Brown Creeper				0.14					0.00	0.07
Winter Wren	UCS			0.00					0.14	0.07
Golden-crowned Kinglet				0.00					0.57	0.29
Swainson's Thrush				0.14					0.00	0.07
Hermit Thrush				2.57					0.71	1.64
Cedar Waxwing	UCS			0.14					0.14	0.14
Black-throated Blue Warbler	RS UCS			0.57					0.14	0.36
Yellow-rumped Warbler (Myrtle Warbler)				0.57					0.57	0.57
Black-throated Green Warbler	RS UCS			1.14					1.71	1.43
Black-and-white Warbler	RS UCS			0.86					0.00	0.43
Ovenbird	UCS			1.14					1.57	1.36
Scarlet Tanager	RC			0.00					0.14	0.07

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Youngs Mtn

Common Name	PIF Codes	Relative Abundance (birds per point)										
		2006	2007	2008	2009	2010	2011	2012	2013	Mean		
Purple Finch	RS UCS				0.00				0.29	0.14		
Points Surveyed:												
Ave # Birds Per Point:												
Species Richness:												
Shannon Diversity:												
					7				7			
					11.00				8.57	9.79		
					15				21	26		
					2.37				2.59			

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Marsh-Billings-Rockefeller NHP

MABI East

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Canada Goose		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.01
Broad-winged Hawk	RS UCS	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.10	0.03
Mourning Dove		0.20	0.00	0.10	0.20	0.40	0.00	0.10	0.10	0.14
Barred Owl		0.00	0.10	0.00	0.00	0.00	0.00	0.10	0.00	0.03
Chimney Swift	CBSD	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.01
Yellow-bellied Sapsucker	UCS	0.10	0.30	0.30	0.00	0.20	0.30	0.30	0.60	0.26
Downy Woodpecker		0.20	0.10	0.00	0.10	0.00	0.00	0.10	0.00	0.06
Hairy Woodpecker	UCS	0.00	0.20	0.30	0.00	0.10	0.00	0.00	0.00	0.08
Northern Flicker (Yellow-shafted Flicker)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.01
Pileated Woodpecker		0.00	0.10	0.00	0.00	0.00	0.10	0.20	0.00	0.05
Eastern Wood-Pewee	RC	0.10	0.30	0.20	0.40	0.30	0.30	0.20	0.10	0.24
Great Crested Flycatcher		0.00	0.10	0.10	0.00	0.00	0.10	0.10	0.00	0.05
Blue-headed Vireo	UCS	0.00	0.10	0.30	0.20	0.30	0.00	0.30	0.40	0.20
Red-eyed Vireo	UCS	2.60	1.80	1.70	1.20	1.40	1.90	1.20	1.60	1.68
Blue Jay		0.20	0.80	0.40	0.50	0.10	0.40	0.80	0.30	0.44
American Crow		0.40	0.40	0.20	0.20	0.20	0.40	0.50	0.10	0.30
Common Raven		0.10	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.03
Black-capped Chickadee	UCS	0.30	1.10	0.40	0.60	0.30	0.70	0.20	0.60	0.53
Tufted Titmouse		0.10	0.00	0.10	0.10	0.00	0.00	0.00	0.00	0.04
Red-breasted Nuthatch		0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.01
White-breasted Nuthatch		0.20	0.20	0.10	0.00	0.20	0.20	0.10	0.10	0.14
Brown Creeper		0.70	0.40	0.40	0.50	0.20	0.10	0.10	0.10	0.31
Winter Wren	UCS	0.00	0.00	0.40	0.10	0.10	0.00	0.00	0.50	0.14
Golden-crowned Kinglet		0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.04
Veery	RC RS UCS	0.20	0.10	0.00	0.00	0.00	0.10	0.00	0.00	0.05

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;

UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Marsh-Billings-Rockefeller NHP

MABI East

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
<i>Hermit Thrush</i>		0.50	0.70	1.00	0.50	0.50	0.50	0.90	0.70	0.66
<i>Wood Thrush</i>	RC UCS	0.00	0.00	0.30	0.00	0.50	0.20	0.00	0.00	0.13
<i>American Robin</i>		0.40	0.40	0.20	0.50	0.70	0.10	0.50	0.20	0.38
<i>Black-throated Blue Warbler</i>	RS UCS	0.00	0.10	0.00	0.10	0.00	0.00	0.30	0.00	0.06
<i>Yellow-rumped Warbler (Myrtle Warbler)</i>		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.04
<i>Black-throated Green Warbler</i>	RS UCS	0.80	0.70	0.50	0.40	0.50	0.80	0.70	1.00	0.68
<i>Blackburnian Warbler</i>	RS UCS	0.80	0.70	0.70	0.80	0.80	0.70	0.70	0.50	0.71
<i>Pine Warbler</i>		0.00	0.10	0.20	0.10	0.30	0.30	0.10	0.20	0.16
<i>Black-and-white Warbler</i>	RS UCS	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.01
<i>Ovenbird</i>	UCS	2.60	3.70	3.20	3.00	2.60	2.80	2.70	1.90	2.81
<i>Louisiana Waterthrush</i>		0.00	0.20	0.00	0.00	0.00	0.20	0.00	0.00	0.05
<i>Common Yellowthroat</i>	UCS	0.00	0.10	0.10	0.00	0.10	0.00	0.00	0.10	0.05
<i>Scarlet Tanager</i>	RC	0.20	0.20	0.40	0.60	0.50	0.50	0.10	0.00	0.31
<i>Chipping Sparrow</i>		0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.10	0.03
<i>Song Sparrow</i>	UCS	0.00	0.00	0.00	0.00	0.10	0.10	0.00	0.00	0.03
<i>Dark-eyed Junco (Slate-colored Junco)</i>		0.00	0.30	0.00	0.10	0.20	0.00	0.00	0.10	0.09
<i>Rose-breasted Grosbeak</i>		0.10	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.03
<i>Indigo Bunting</i>		0.00	0.20	0.00	0.00	0.00	0.10	0.00	0.00	0.04
<i>Brown-headed Cowbird</i>		0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.05
<i>American Goldfinch</i>		0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.01

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Marsh-Billings-Rockefeller NHP

MABI East

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
<i>Relative Abundance (birds per point)</i>										
<i>Points Surveyed:</i>		10	10	10	10	10	10	10	10	
<i>Ave # Birds Per Point:</i>		11.00	13.80	11.70	10.40	10.70	11.20	10.40	10.10	11.16
<i>Species Richness:</i>		22	30	24	22	24	25	23	25	45
<i>Shannon Diversity:</i>		2.45	2.73	2.62	2.55	2.71	2.63	2.60	2.73	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Marsh-Billings-Rockefeller NHP

MABI Northwest

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
<i>Relative Abundance (birds per point)</i>										
Broad-winged Hawk	RS UCS	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Mourning Dove		0.00	0.20	0.20	0.00	0.30	0.00	0.00	0.00	0.09
Barred Owl		0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.01
Yellow-bellied Sapsucker	UCS	0.00	0.30	0.00	0.50	0.30	0.40	0.00	0.50	0.25
Downy Woodpecker		0.00	0.10	0.00	0.10	0.00	0.00	0.00	0.00	0.03
Hairy Woodpecker	UCS	0.40	0.30	0.20	0.00	0.00	0.10	0.20	0.30	0.19
Northern Flicker (Yellow-shafted Flicker)		0.00	0.10	0.00	0.00	0.10	0.00	0.00	0.00	0.03
Pileated Woodpecker		0.20	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.04
Eastern Wood-Pewee	RC	0.80	0.80	1.40	0.60	0.70	1.00	0.70	0.70	0.84
Least Flycatcher		0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.01
Great Crested Flycatcher		0.20	0.00	0.80	0.20	0.30	0.10	0.10	0.10	0.23
Blue-headed Vireo	UCS	0.70	0.30	0.00	0.10	0.20	0.20	0.00	0.10	0.20
Red-eyed Vireo	UCS	2.70	1.70	3.80	3.20	2.80	2.80	2.30	2.80	2.76
Blue Jay		0.80	0.60	0.60	0.60	0.50	0.70	0.60	1.10	0.69
American Crow		0.00	0.30	0.20	0.30	0.20	0.30	0.20	0.20	0.21
Common Raven		0.10	0.00	0.20	0.00	0.00	0.00	0.20	0.10	0.08
Black-capped Chickadee	UCS	0.20	0.40	0.60	0.40	0.30	0.20	0.00	0.40	0.31
Red-breasted Nuthatch		0.00	0.20	0.00	0.10	0.30	0.10	0.00	0.00	0.09
White-breasted Nuthatch		0.40	0.20	0.00	0.40	0.10	0.10	0.10	0.30	0.20
Brown Creeper		0.30	0.50	0.20	0.30	0.30	0.10	0.00	0.10	0.23
Winter Wren	UCS	0.10	0.10	0.00	0.00	0.00	0.10	0.00	0.20	0.06
Golden-crowned Kinglet		0.00	0.10	0.00	0.00	0.00	0.10	0.00	0.00	0.03
Veery	RC RS UCS	0.10	0.10	0.40	0.00	0.00	0.00	0.00	0.00	0.08
Hermit Thrush		0.80	0.40	0.80	1.40	1.20	1.10	0.80	0.00	0.81
Wood Thrush	RC UCC	0.70	0.60	0.60	0.40	0.50	0.40	0.80	0.30	0.54

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Marsh-Billings-Rockefeller NHP

MABI Northwest

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
<i>American Robin</i>		1.20	0.40	0.20	0.50	0.50	0.70	0.50	0.40	0.55
Cedar Waxwing	UCS	0.00	0.00	0.20	0.00	0.00	0.20	0.10	0.00	0.06
Chestnut-sided Warbler		0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.40	0.08
Black-throated Blue Warbler	RS UCS	0.40	0.50	0.60	0.60	0.40	0.30	0.40	0.80	0.50
Yellow-rumped Warbler (Myrtle Warbler)		0.00	0.00	0.00	0.20	0.20	0.00	0.00	0.10	0.06
Black-throated Green Warbler	RS UCS	1.50	0.60	1.20	0.60	0.50	1.00	0.40	0.50	0.79
Blackburnian Warbler	RS UCS	0.90	0.70	0.00	0.60	0.10	0.30	0.10	0.40	0.39
Pine Warbler		0.00	0.00	0.00	0.30	0.10	0.00	0.00	0.00	0.05
Black-and-white Warbler	RS UCS	0.10	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.03
American Redstart	RS UCS	0.10	0.10	0.00	0.10	0.00	0.00	0.00	0.00	0.04
Ovenbird	UCS	4.50	2.60	4.80	4.60	3.50	4.40	4.30	3.10	3.98
Mourning Warbler		0.00	0.00	0.00	0.10	0.20	0.00	0.00	0.00	0.04
Common Yellowthroat	UCS	0.10	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.03
Scarlet Tanager	RC	0.30	0.80	0.00	0.50	0.40	0.50	0.80	0.70	0.50
White-throated Sparrow		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.01
Dark-eyed Junco (Slate-colored Junco)		0.60	0.20	0.00	0.20	0.80	1.00	0.60	0.00	0.43
Rose-breasted Grosbeak		0.60	0.10	0.00	0.50	0.30	0.00	0.20	0.30	0.25
Common Grackle		0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Brown-headed Cowbird		0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Purple Finch	RS UCS	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.01
American Goldfinch		0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.01

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Marsh-Billings-Rockefeller NHP

MABI Northwest

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
<i>Relative Abundance (birds per point)</i>										
<i>Points Surveyed:</i>		10	10	5	10	10	10	10	10	
<i>Ave # Birds Per Point:</i>		18.90	13.60	17.00	17.50	15.20	16.40	13.80	14.00	15.80
<i>Species Richness:</i>		27	31	18	27	27	26	22	24	46
<i>Shannon Diversity:</i>		2.72	2.98	2.30	2.65	2.72	2.57	2.43	2.63	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Marsh-Billings-Rockefeller NHP

MABI South

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Wild Turkey		0.00	0.00	0.20	0.00	0.00	0.20	0.00	0.00	0.05
Mourning Dove		0.20	0.40	0.20	0.40	0.20	0.00	0.00	0.00	0.18
Barred Owl		0.00	1.20	0.00	0.20	0.00	0.00	0.00	0.00	0.18
Yellow-bellied Sapsucker	UCS	0.40	0.40	0.20	0.00	0.40	0.60	0.40	0.20	0.33
Downy Woodpecker		0.40	0.20	0.00	0.00	0.00	0.00	0.20	0.00	0.10
Northern Flicker (Yellow-shafted Flicker)		0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
Pileated Woodpecker		0.00	0.00	0.00	0.20	0.00	0.20	0.00	0.00	0.05
Eastern Wood-Pewee	RC	1.20	1.40	0.40	0.60	0.40	0.60	0.20	0.60	0.68
Least Flycatcher		0.20	0.60	0.20	0.00	0.00	0.00	0.00	0.00	0.13
Great Crested Flycatcher		0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.20	0.08
Eastern Kingbird	RC	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.05
Blue-headed Vireo	UCS	0.20	0.20	0.20	0.00	0.00	0.40	0.20	0.80	0.25
Red-eyed Vireo	UCS	1.40	2.00	0.20	1.20	3.00	1.60	1.60	1.00	1.50
Blue Jay		0.80	1.40	0.20	0.60	0.20	0.40	0.80	1.00	0.68
American Crow		0.20	0.40	0.00	0.00	0.00	0.00	0.00	0.40	0.13
Common Raven		0.00	0.00	0.00	0.00	0.20	0.20	0.00	0.40	0.10
Black-capped Chickadee	UCS	0.60	1.20	0.60	0.80	0.20	0.20	0.40	0.40	0.55
Tufted Titmouse		0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Red-breasted Nuthatch		0.20	0.00	0.00	0.00	0.20	0.20	0.00	0.20	0.10
White-breasted Nuthatch		0.40	0.80	0.20	1.00	0.00	0.20	0.40	0.00	0.38
Brown Creeper		0.60	0.80	0.60	0.20	0.40	0.00	0.60	0.20	0.43
Golden-crowned Kinglet		0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.03
Veery	RC RS UCS	0.00	0.20	0.00	0.00	0.00	0.20	0.00	0.00	0.05
Hermit Thrush		0.00	1.40	1.40	1.00	0.00	0.20	0.20	0.00	0.53
Wood Thrush	RC UCC	0.60	0.00	0.20	0.00	0.40	0.20	0.20	0.20	0.23

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Marsh-Billings-Rockefeller NHP

MABI South

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
<i>American Robin</i>		0.60	1.60	0.80	0.60	1.20	0.00	1.00	0.40	0.78
<i>Cedar Waxwing</i>	UCS	0.00	0.20	0.00	0.00	0.20	0.00	0.00	0.60	0.13
<i>Nashville Warbler</i>		0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.03
<i>Chestnut-sided Warbler</i>		0.00	0.00	0.20	0.00	0.00	0.20	0.20	0.40	0.13
<i>Black-throated Blue Warbler</i>	RS UCS	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.40	0.13
<i>Yellow-rumped Warbler (Myrtle Warbler)</i>		0.40	0.40	0.20	0.00	0.00	0.20	0.00	0.20	0.18
<i>Black-throated Green Warbler</i>	RS UCS	0.00	1.00	0.20	0.20	0.40	0.20	0.20	0.40	0.33
<i>Blackburnian Warbler</i>	RS UCS	0.20	0.60	0.60	0.60	0.60	0.80	0.40	0.80	0.58
<i>Pine Warbler</i>		0.00	0.00	0.00	0.00	0.20	0.20	0.40	0.20	0.13
<i>Black-and-white Warbler</i>	RS UCS	0.40	0.20	0.00	0.00	0.00	0.40	0.00	0.20	0.15
<i>American Redstart</i>	RS UCS	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.03
<i>Ovenbird</i>	UCS	2.60	4.40	2.60	2.40	2.00	2.20	2.40	1.80	2.55
<i>Mourning Warbler</i>		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.03
<i>Common Yellowthroat</i>	UCS	0.20	0.40	0.60	0.40	0.20	0.40	0.20	0.00	0.30
<i>Scarlet Tanager</i>	RC	0.20	0.80	0.20	0.60	0.20	0.40	0.40	0.40	0.40
<i>Chipping Sparrow</i>		0.60	0.20	0.00	0.20	0.00	0.00	0.00	0.00	0.13
<i>Swamp Sparrow</i>		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.03
<i>Dark-eyed Junco (Slate-colored Junco)</i>		0.00	1.20	0.20	0.20	0.00	0.40	0.40	0.20	0.33
<i>Rose-breasted Grosbeak</i>		0.20	0.40	0.20	0.00	0.20	0.60	0.20	0.40	0.28
<i>Indigo Bunting</i>		0.00	0.60	0.40	0.00	0.20	0.00	0.00	0.00	0.15
<i>Bobolink</i>	CBSD RC UCC	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.05
<i>Red-winged Blackbird</i>		0.20	1.40	0.60	0.00	0.00	0.00	0.00	0.00	0.28
<i>Brown-headed Cowbird</i>		0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.03
<i>Baltimore Oriole</i>		0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
<i>American Goldfinch</i>		0.00	0.00	0.20	0.00	0.00	0.00	0.20	0.00	0.05

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Marsh-Billings-Rockefeller NHP

MABI South

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point)</i>										<i>Mean</i>
		2006	2007	2008	2009	2010	2011	2012	2013			
<i>Points Surveyed:</i>		5	5	5	5	5	5	5	5			
<i>Ave # Birds Per Point:</i>		13.80	26.60	12.00	11.40	11.20	11.80	12.20	12.60			13.95
<i>Species Richness:</i>		27	32	27	18	21	27	24	28			50
<i>Shannon Diversity:</i>		2.96	3.11	2.90	2.61	2.51	2.95	2.84	3.10			

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA Hartwell Tavern

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Canada Goose		0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.02
Wild Turkey		0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.02
Red-tailed Hawk		0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.02
Mourning Dove		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.02
Black-billed Cuckoo	CBSD UCC	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.02
Yellow-billed Cuckoo	CBSD RC	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.02
Red-bellied Woodpecker		0.00	0.29	0.29	0.57	0.00	0.43	1.14	0.29	0.38
<i>Downy Woodpecker</i>		0.29	0.71	0.57	0.57	0.86	1.14	0.86	1.14	0.77
Hairy Woodpecker		0.00	0.29	0.00	0.14	0.14	0.00	0.00	0.00	0.07
Northern Flicker (Yellow-shafted Flicker)		0.00	0.00	0.14	0.00	0.29	0.00	0.14	0.00	0.07
Eastern Wood-Pewee	RC	0.86	0.86	0.43	0.86	1.00	0.57	0.71	0.71	0.75
Eastern Phoebe		0.14	0.00	0.14	0.00	0.14	0.00	0.00	0.14	0.07
Great Crested Flycatcher		0.29	0.00	0.43	0.14	0.14	0.57	0.29	0.14	0.25
Eastern Kingbird	RC	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.02
Red-eyed Vireo		0.00	0.29	0.71	0.14	0.43	0.14	0.71	0.29	0.34
<i>Blue Jay</i>		2.14	0.86	1.43	1.00	1.43	0.86	0.57	1.00	1.16
<i>American Crow</i>		1.00	1.00	1.29	0.86	1.29	1.14	1.00	0.43	1.00
Barn Swallow		0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.02
<i>Black-capped Chickadee</i>		0.71	0.71	0.86	0.86	1.00	0.86	0.86	1.00	0.86
<i>Tufted Titmouse</i>		0.71	1.86	2.57	2.14	1.29	1.86	1.71	1.29	1.68
Red-breasted Nuthatch		0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.04
<i>White-breasted Nuthatch</i>		0.43	0.57	0.43	0.57	1.57	0.43	1.29	0.29	0.70
Carolina Wren		0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.14	0.05
Veery	RC	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14	0.04
Hermit Thrush		0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA Hartwell Tavern

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Wood Thrush	RC UCC	0.43	0.14	0.57	0.43	0.57	0.29	0.29	0.00	0.34
<i>American Robin</i>		0.57	1.00	2.14	1.57	0.29	0.57	0.86	1.43	1.05
Gray Catbird	UCS	0.57	0.14	0.57	0.71	0.57	0.71	1.00	0.86	0.64
Northern Mockingbird		0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.02
Cedar Waxwing		0.00	0.14	0.00	0.71	0.00	0.00	0.29	0.14	0.16
Blue-winged Warbler	RC RS UCS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.02
Yellow Warbler		0.00	0.00	0.14	0.14	0.14	0.14	0.14	0.14	0.11
Pine Warbler		0.14	0.14	0.00	0.29	0.29	0.00	0.00	0.14	0.13
<i>Ovenbird</i>		0.71	0.86	0.43	1.00	0.57	0.57	0.71	1.14	0.75
Common Yellowthroat		0.14	0.29	0.57	0.71	0.57	0.00	0.43	0.29	0.38
Scarlet Tanager	RC	0.57	0.29	0.57	1.00	0.43	0.43	0.71	0.29	0.54
Chipping Sparrow		0.14	0.00	0.43	0.29	0.29	0.57	0.29	0.71	0.34
Song Sparrow		0.14	0.14	0.14	0.14	0.43	0.14	0.14	0.14	0.18
<i>Northern Cardinal</i>		1.29	0.57	1.00	0.71	0.29	1.29	0.29	0.71	0.77
Rose-breasted Grosbeak	RC	0.00	0.14	0.00	0.43	0.43	0.29	0.14	0.00	0.18
Indigo Bunting		0.14	0.00	0.29	0.00	0.43	0.00	0.00	0.29	0.14
Red-winged Blackbird		0.43	0.00	0.14	0.57	0.14	0.43	0.14	0.14	0.25
Common Grackle		0.43	0.14	0.14	0.71	0.29	0.29	0.00	0.43	0.30
Brown-headed Cowbird		0.29	0.43	0.29	0.43	0.00	0.57	0.14	0.14	0.29
Baltimore Oriole	RC	0.00	0.14	0.00	0.29	0.29	0.29	0.00	0.14	0.14
House Finch		0.00	0.00	0.00	0.29	0.14	0.14	0.00	0.00	0.07
American Goldfinch		1.00	0.29	0.29	0.14	0.71	1.00	1.29	0.43	0.64
House Sparrow		0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.02

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA Hartwell Tavern

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
<i>Relative Abundance (birds per point)</i>										
<i>Points Surveyed:</i>		7	7	7	7	7	7	7	7	
<i>Ave # Birds Per Point:</i>		13.86	12.43	17.14	18.71	16.57	16.43	16.57	14.86	15.82
<i>Species Richness:</i>		26	26	28	32	31	31	28	32	48
<i>Shannon Diversity:</i>		2.96	2.95	2.97	3.21	3.17	3.17	3.07	3.14	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA Meriam's Corner

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Canada Goose		0.00	0.13	0.00	0.00	0.00	0.13	0.00	0.00	0.04
Wild Turkey		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.02
Great Blue Heron		0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.04
Red-tailed Hawk		0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.02
Killdeer		0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Mourning Dove		0.00	0.00	0.25	0.00	0.00	0.38	0.14	0.00	0.11
Chimney Swift	CBSD RC	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Red-bellied Woodpecker		0.00	0.00	0.00	0.00	0.00	0.25	0.43	0.13	0.11
<i>Downy Woodpecker</i>		<i>0.50</i>	<i>0.88</i>	<i>0.38</i>	<i>1.00</i>	<i>0.00</i>	<i>0.13</i>	<i>0.43</i>	<i>0.25</i>	<i>0.51</i>
Hairy Woodpecker		0.13	0.25	0.00	0.00	0.00	0.25	0.00	0.00	0.09
Northern Flicker (Yellow-shafted Flicker)		0.25	0.00	0.25	0.25	0.00	0.25	0.14	0.25	0.20
Eastern Wood-Pewee	RC	0.13	0.00	0.00	0.13	0.00	0.13	0.00	0.00	0.05
Alder Flycatcher		0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.02
Eastern Phoebe		0.00	0.00	0.00	0.13	0.00	0.00	0.14	0.00	0.04
Great Crested Flycatcher		0.00	0.00	0.25	0.00	0.00	0.13	0.00	0.25	0.09
Eastern Kingbird	RC	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Warbling Vireo		0.13	0.00	0.13	0.13	0.00	0.00	0.00	0.00	0.05
Red-eyed Vireo		0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.02
<i>Blue Jay</i>		<i>0.75</i>	<i>0.75</i>	<i>0.50</i>	<i>0.50</i>	<i>0.00</i>	<i>0.63</i>	<i>0.71</i>	<i>0.75</i>	<i>0.66</i>
<i>American Crow</i>		<i>0.13</i>	<i>0.63</i>	<i>0.38</i>	<i>1.13</i>	<i>0.00</i>	<i>0.88</i>	<i>1.14</i>	<i>0.75</i>	<i>0.72</i>
Tree Swallow		0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.13	0.04
Barn Swallow		0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.02
<i>Black-capped Chickadee</i>		<i>1.25</i>	<i>1.00</i>	<i>0.25</i>	<i>0.38</i>	<i>0.00</i>	<i>0.13</i>	<i>0.71</i>	<i>0.13</i>	<i>0.55</i>
<i>Tufted Titmouse</i>		<i>1.00</i>	<i>0.88</i>	<i>0.50</i>	<i>1.00</i>	<i>0.00</i>	<i>1.13</i>	<i>0.86</i>	<i>0.63</i>	<i>0.85</i>
White-breasted Nuthatch		0.50	0.13	0.00	0.50	0.00	0.13	0.43	0.25	0.28

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA Meriam's Corner

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Carolina Wren		0.25	0.13	0.00	0.13		0.00	0.14	0.13	0.11
House Wren		0.00	0.00	0.00	0.13		0.00	0.00	0.00	0.02
Blue-gray Gnatcatcher		0.00	0.00	0.00	0.13		0.00	0.00	0.00	0.02
Eastern Bluebird		0.00	0.00	0.00	0.13		0.00	0.00	0.00	0.02
Veery	RC	0.13	0.38	0.00	0.00		0.00	0.14	0.25	0.13
Wood Thrush	RC UCC	0.50	0.75	0.50	0.38		0.25	0.86	0.25	0.50
American Robin		0.38	1.00	0.00	0.25		0.25	0.29	0.00	0.31
Gray Catbird	UCS	0.38	0.88	0.25	1.13		0.63	0.86	0.88	0.71
Northern Mockingbird		0.00	0.25	0.00	0.13		0.00	0.14	0.13	0.09
Cedar Waxwing		0.13	0.00	0.00	0.13		0.00	0.00	0.00	0.04
Blue-winged Warbler	RC RS UCS	0.38	0.00	0.00	0.25		0.00	0.00	0.00	0.09
Yellow Warbler		0.13	0.00	0.25	0.13		0.00	0.00	0.00	0.07
Pine Warbler		0.25	0.50	0.25	0.63		0.13	0.14	0.00	0.27
American Redstart		0.00	0.13	0.00	0.13		0.00	0.00	0.00	0.04
<i>Ovenbird</i>		0.50	0.75	0.50	0.50		0.63	0.57	0.38	0.55
<i>Common Yellowthroat</i>		1.00	1.00	0.25	0.63		0.50	0.86	0.50	0.68
Scarlet Tanager	RC	0.25	0.00	0.13	0.38		0.00	0.00	0.50	0.18
Chipping Sparrow		0.00	0.00	0.00	0.00		0.13	0.00	0.00	0.02
<i>Song Sparrow</i>		1.25	0.88	0.63	1.13		0.75	0.43	0.50	0.79
Swamp Sparrow		0.00	0.00	0.13	0.13		0.00	0.00	0.00	0.04
<i>Northern Cardinal</i>		0.38	0.63	0.50	0.75		0.38	0.86	0.38	0.55
Rose-breasted Grosbeak	RC	0.50	0.38	0.38	0.50		0.50	0.00	0.13	0.34
Indigo Bunting		0.00	0.38	0.13	0.13		0.00	0.14	0.00	0.11
Red-winged Blackbird		0.88	0.13	0.50	0.63		0.88	0.29	0.25	0.51
Common Grackle		0.38	0.00	0.00	0.25		0.75	0.43	0.25	0.29

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA Meriam's Corner

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
<i>Relative Abundance (birds per point)</i>										
Brown-headed Cowbird		0.25	0.50	0.13	0.38		0.25	0.14	0.00	0.23
Baltimore Oriole	RC	0.25	0.25	0.00	0.38		0.00	0.00	0.13	0.14
House Finch		0.25	0.00	0.13	0.00		0.00	0.14	0.00	0.07
American Goldfinch		0.38	0.63	0.25	0.38		0.00	0.14	0.13	0.27
House Sparrow		0.00	0.25	0.00	0.13		0.63	0.00	0.13	0.16
<i>Points Surveyed:</i>										
		8	8	8	8		8	7	8	
<i>Ave # Birds Per Point:</i>		13.75	14.63	7.88	15.63		11.13	11.86	8.50	11.91
<i>Species Richness:</i>		33	28	26	41		27	28	27	55
<i>Shannon Diversity:</i>		3.24	3.15	3.13	3.42		3.06	3.08	3.08	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA The Bluff

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Wild Turkey		0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Sharp-shinned Hawk		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.02
Red-tailed Hawk		0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.02
Mourning Dove		0.25	0.00	0.00	0.00	0.50	0.00	0.00	0.13	0.11
Belted Kingfisher	CBSD	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.02
Red-bellied Woodpecker		0.00	0.00	0.13	0.00	0.00	0.00	0.13	0.00	0.03
Downy Woodpecker		0.00	0.00	0.00	0.00	0.25	0.00	0.38	0.38	0.13
Northern Flicker (Yellow-shafted Flicker)		0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.13	0.03
Eastern Wood-Pewee	RC	0.13	0.00	0.00	0.00	0.38	0.00	0.13	0.50	0.14
Eastern Phoebe		0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.02
Great Crested Flycatcher		0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.03
Warbling Vireo		0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.03
Red-eyed Vireo		0.00	0.00	0.25	0.13	0.00	0.25	0.75	0.00	0.17
<i>Blue Jay</i>		<i>0.50</i>	<i>1.75</i>	<i>1.75</i>	<i>0.75</i>	<i>1.25</i>	<i>1.25</i>	<i>1.38</i>	<i>0.88</i>	<i>1.19</i>
<i>American Crow</i>		<i>0.50</i>	<i>0.63</i>	<i>0.88</i>	<i>0.63</i>	<i>1.13</i>	<i>2.13</i>	<i>1.00</i>	<i>0.38</i>	<i>0.91</i>
Fish Crow		0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.02
<i>Black-capped Chickadee</i>		<i>1.00</i>	<i>0.25</i>	<i>0.38</i>	<i>0.25</i>	<i>0.25</i>	<i>0.63</i>	<i>0.63</i>	<i>1.50</i>	<i>0.61</i>
<i>Tufted Titmouse</i>		<i>1.38</i>	<i>1.75</i>	<i>1.38</i>	<i>2.50</i>	<i>1.25</i>	<i>0.75</i>	<i>2.25</i>	<i>2.25</i>	<i>1.69</i>
<i>White-breasted Nuthatch</i>		<i>0.25</i>	<i>0.50</i>	<i>0.00</i>	<i>0.88</i>	<i>0.88</i>	<i>0.13</i>	<i>1.25</i>	<i>0.25</i>	<i>0.52</i>
Carolina Wren		0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.06
House Wren		0.13	0.13	0.00	0.13	0.00	0.00	0.13	0.00	0.06
Wood Thrush	RC UCC	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.03
<i>American Robin</i>		<i>0.13</i>	<i>0.75</i>	<i>1.38</i>	<i>1.63</i>	<i>1.13</i>	<i>1.25</i>	<i>2.75</i>	<i>0.38</i>	<i>1.17</i>
Gray Catbird	UCS	0.00	0.38	0.63	0.63	0.25	0.13	0.38	0.13	0.31
Northern Mockingbird		0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.02

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA The Bluff

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point)</i>								<i>Mean</i>
		2006	2007	2008	2009	2010	2011	2012	2013	
<i>Pine Warbler</i>		0.25	0.25	0.88	1.25	1.00	0.38	0.25	0.88	0.64
<i>Ovenbird</i>		0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.63	0.11
<i>Common Yellowthroat</i>		0.13	0.00	0.25	0.63	0.25	0.13	0.00	0.25	0.20
Scarlet Tanager	RC	0.00	0.00	0.00	0.63	0.00	0.00	0.25	0.00	0.11
<i>Chipping Sparrow</i>		0.00	0.00	0.13	0.13	0.00	0.00	0.13	0.00	0.05
<i>Song Sparrow</i>		0.38	0.75	0.63	0.13	0.50	0.63	0.38	0.25	0.45
<i>Northern Cardinal</i>		0.88	1.00	0.63	0.25	0.13	0.13	1.00	0.75	0.59
Rose-breasted Grosbeak	RC	0.00	0.00	0.00	0.25	0.13	0.00	0.00	0.00	0.05
<i>Red-winged Blackbird</i>		0.38	1.13	0.75	0.75	0.25	1.13	1.00	1.00	0.80
<i>Common Grackle</i>		0.25	0.25	0.13	0.63	0.13	0.63	0.25	0.13	0.30
<i>Brown-headed Cowbird</i>		0.00	0.50	0.00	0.13	0.00	0.13	0.00	0.13	0.11
Baltimore Oriole	RC	0.13	0.00	0.00	0.13	0.00	0.13	0.13	0.00	0.06
<i>House Finch</i>		0.13	0.25	0.00	0.00	0.13	0.00	0.00	0.38	0.11
<i>American Goldfinch</i>		0.63	0.50	0.13	0.13	1.00	0.13	0.13	0.13	0.34
<i>House Sparrow</i>		0.13	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.05
Points Surveyed:										
		8	8	8	8	8	8	8	8	
Ave # Birds Per Point:		7.75	11.13	10.38	13.38	11.13	10.00	15.00	11.75	11.31
Species Richness:		20	18	17	25	22	18	23	23	40
Shannon Diversity:		2.69	2.62	2.52	2.80	2.76	2.46	2.67	2.75	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA Battle Road

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Wild Turkey				0.17				0.17	0.00	0.08
Great Blue Heron				0.00				0.00	0.17	0.08
Red-tailed Hawk				0.17				0.17	0.00	0.08
Mourning Dove				0.00				0.00	0.33	0.17
Chimney Swift	CBSD RC			0.17				0.17	0.00	0.08
<i>Downy Woodpecker</i>				0.33				0.33	0.33	0.33
Northern Flicker (Yellow-shafted Flicker)				0.00				0.00	0.17	0.08
<i>Eastern Phoebe</i>				0.17				0.17	0.83	0.50
Great Crested Flycatcher				0.17				0.17	0.00	0.08
Eastern Kingbird	RC			0.00				0.00	0.17	0.08
<i>Blue Jay</i>				0.17				0.17	0.67	0.42
<i>American Crow</i>				0.50				0.50	0.67	0.58
Tree Swallow				0.17				0.17	0.17	0.17
Barn Swallow				0.00				0.00	0.33	0.17
Black-capped Chickadee				0.00				0.00	0.17	0.08
Tufted Titmouse				0.00				0.00	0.17	0.08
<i>White-breasted Nuthatch</i>				0.33				0.33	0.50	0.42
House Wren				0.17				0.17	0.00	0.08
Eastern Bluebird				0.33				0.33	0.00	0.17
<i>American Robin</i>				0.00				0.00	0.50	0.25
Gray Catbird	UCS			0.33				0.33	0.50	0.42
<i>Northern Mockingbird</i>				0.50				0.50	0.17	0.33
European Starling				0.17				0.17	0.00	0.08
Blue-winged Warbler	RC RS UCS			0.00				0.00	0.17	0.08
Yellow Warbler				0.17				0.17	0.00	0.08

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;

UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA Battle Road

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
<i>Chipping Sparrow</i>								0.33	0.17	0.25
<i>Song Sparrow</i>								0.33	0.17	0.25
<i>Northern Cardinal</i>								0.17	0.33	0.25
<i>Indigo Bunting</i>								0.00	0.17	0.08
<i>Red-winged Blackbird</i>								0.00	0.50	0.25
<i>Brown-headed Cowbird</i>								0.00	0.17	0.08
Baltimore Oriole	RC							0.00	0.17	0.08
<i>American Goldfinch</i>								0.50	0.33	0.42
<i>House Sparrow</i>								0.50	0.00	0.25
Points Surveyed:										
Ave # Birds Per Point:										
Species Richness:										
Shannon Diversity:										
								6	6	
								5.83	8.00	6.92
								21	25	34
								2.94	3.05	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Morristown NHP

MORR Mt. Kemble

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Red-tailed Hawk				0.20	0.10	0.30	0.10		0.00	0.14
Mourning Dove				0.30	0.00	0.20	0.10		0.00	0.12
Yellow-billed Cuckoo	CBSD			0.10	0.50	0.00	0.00		0.00	0.12
Great Horned Owl				0.20	0.30	0.10	0.00		0.00	0.12
Red-bellied Woodpecker				0.60	0.20	0.90	0.10		0.40	0.44
Downy Woodpecker	RS UCS			0.60	0.50	0.20	0.20		0.10	0.32
Hairy Woodpecker				0.50	0.40	0.90	0.20		0.00	0.40
Northern Flicker (Yellow-shafted Flicker)				0.40	0.40	0.50	0.10		0.30	0.34
Pileated Woodpecker	UCS			0.20	0.20	0.10	0.30		0.00	0.16
Eastern Wood-Pewee	RC			1.10	0.80	1.40	0.80		1.30	1.08
Eastern Phoebe	UCS			0.10	0.00	0.10	0.00		0.10	0.06
Great Crested Flycatcher				0.20	0.20	0.00	0.00		0.00	0.08
Blue-headed Vireo				0.00	0.00	0.10	0.00		0.00	0.02
Red-eyed Vireo	UCS			0.20	0.30	0.30	0.50		0.30	0.32
Blue Jay				1.30	1.10	2.20	1.50		1.60	1.54
American Crow				0.70	0.60	0.60	0.40		0.10	0.48
Black-capped Chickadee				0.10	0.00	0.00	0.10		0.00	0.04
Tufted Titmouse	UCS			1.00	1.40	1.30	0.50		0.30	0.90
White-breasted Nuthatch	UCS			0.80	0.70	0.60	0.20		0.00	0.46
Carolina Wren				0.00	0.00	0.00	0.00		0.40	0.08
House Wren				0.10	0.00	0.00	0.00		0.30	0.08
Blue-gray Gnatcatcher				0.00	0.20	0.00	0.00		0.00	0.04
Eastern Bluebird	UCS			0.20	0.00	0.00	0.00		0.00	0.04
Veery				0.40	0.00	0.30	0.20		0.20	0.22
Wood Thrush	RC RS UCC UCS			1.50	1.60	1.70	0.70		0.60	1.22

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Morristown NHP

MORR Mt. Kemble

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
<i>Relative Abundance (birds per point)</i>										
<i>American Robin</i>		0.90	1.10	1.20	0.70	1.00	0.98			
Gray Catbird	UCS	0.10	0.10	0.10	0.10	0.00	0.08			
American Redstart		0.00	0.20	0.00	0.10	0.00	0.06			
Worm-eating Warbler	RC RS UCS	0.40	0.10	0.00	0.00	0.00	0.10			
<i>Ovenbird</i>		0.60	0.10	1.30	0.60	0.30	0.58			
Louisiana Waterthrush	RC RS UCS	0.00	0.00	0.00	0.20	0.00	0.04			
Kentucky Warbler	RC UCC	0.00	0.00	0.00	0.00	0.20	0.04			
Scarlet Tanager	RS UCS	0.50	1.00	0.80	1.10	0.00	0.68			
Eastern Towhee	RC RS UCS	0.00	0.20	0.20	0.30	0.30	0.20			
<i>Chipping Sparrow</i>		0.00	0.00	0.20	0.10	0.10	0.08			
Song Sparrow	UCS	0.00	0.00	0.00	0.10	0.00	0.02			
<i>Northern Cardinal</i>		0.10	0.40	0.10	0.20	0.10	0.18			
<i>Rose-breasted Grosbeak</i>		0.10	0.00	0.20	0.00	0.20	0.10			
Indigo Bunting	UCS	0.20	0.00	0.10	0.00	0.00	0.06			
<i>Brown-headed Cowbird</i>		0.00	0.10	0.00	0.10	0.00	0.04			
American Goldfinch	RS UCS	0.00	0.00	0.00	0.10	0.00	0.02			
<i>Points Surveyed:</i>										
		10	10	10	10	10	10			
<i>Ave # Birds Per Point:</i>		13.70	12.80	16.00	9.70	8.20	12.08			
<i>Species Richness:</i>		30	26	27	28	20	41			
<i>Shannon Diversity:</i>		3.09	2.93	2.87	2.94	2.62				

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Morristown NHP

MORR Primrose Brook

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Canada Goose		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.01
Wild Turkey		0.00	0.20	0.00	0.00	0.20		0.00	0.00	0.06
Red-tailed Hawk		0.10	0.10	0.00	0.00	0.00		0.10	0.10	0.06
Mourning Dove		0.10	0.10	0.00	0.10	0.00		0.00	0.00	0.04
Yellow-billed Cuckoo	CBSD	0.00	0.40	0.00	0.00	0.00		0.00	0.00	0.06
<i>Red-bellied Woodpecker</i>		0.60	0.40	1.20	1.20	0.30		0.70	0.40	0.69
Downy Woodpecker	RS UCS	0.20	0.10	0.00	0.20	0.10		0.00	0.20	0.11
Northern Flicker (Yellow-shafted Flicker)		0.20	0.70	0.10	0.10	0.20		0.20	0.20	0.24
Pileated Woodpecker	UCS	0.00	0.10	0.00	0.20	0.20		0.20	0.40	0.16
<i>Eastern Wood-Pewee</i>	RC	0.80	0.80	0.20	0.10	0.40		0.60	0.70	0.51
Eastern Phoebe	UCS	0.00	0.10	0.00	0.00	0.00		0.00	0.00	0.01
Great Crested Flycatcher		0.00	0.00	0.20	0.00	0.00		0.20	0.10	0.07
Yellow-throated Vireo	RC RS UCS	0.10	0.00	0.10	0.00	0.00		0.00	0.00	0.03
<i>Red-eyed Vireo</i>	UCS	1.40	1.10	0.50	0.60	0.20		0.20	0.60	0.66
<i>Blue Jay</i>		0.60	1.70	0.90	0.60	1.10		0.80	0.50	0.89
American Crow		0.10	0.90	0.10	0.10	0.20		0.00	0.20	0.23
Black-capped Chickadee		0.00	0.10	0.00	0.00	0.00		0.00	0.00	0.01
Tufted Titmouse	UCS	0.60	0.50	0.80	1.40	0.50		0.40	1.00	0.74
White-breasted Nuthatch	UCS	0.20	0.50	0.40	0.10	0.20		0.20	0.00	0.23
Carolina Wren		0.00	0.20	0.00	0.00	0.00		0.00	0.00	0.03
Eastern Bluebird	UCS	0.00	0.00	0.10	0.00	0.00		0.00	0.00	0.01
<i>Veery</i>		0.40	0.70	0.60	1.00	0.50		0.20	0.30	0.53
Swainson's Thrush		0.10	0.00	0.00	0.10	0.00		0.00	0.00	0.03
Wood Thrush	RC RS UCC UCS	1.30	1.90	0.90	0.90	1.50		0.70	0.50	1.10
<i>American Robin</i>		0.90	1.30	1.00	1.00	0.60		0.30	0.60	0.81

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Morristown NHP

MORR Primrose Brook

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
<i>Relative Abundance (birds per point)</i>										
Gray Catbird	UCS	0.00	0.00	0.10	0.10	0.10		0.10	0.00	0.06
Worm-eating Warbler	RC RS UCS	0.00	0.40	0.00	0.00	0.00		0.10	0.10	0.09
Overbird		0.90	1.10	0.40	0.70	0.60		0.80	0.70	0.74
Louisiana Waterthrush	RC RS UCS	0.00	0.10	0.00	0.00	0.00		0.00	0.00	0.01
Hooded Warbler	RS UCS	0.10	0.20	0.00	0.00	0.00		0.40	0.30	0.14
Scarlet Tanager	RS UCS	0.60	1.20	0.50	0.30	0.40		0.10	0.80	0.56
Eastern Towhee	RC RS UCS	0.40	0.50	0.10	0.40	0.40		0.60	0.60	0.43
Northern Cardinal		0.30	0.90	0.10	0.40	0.20		0.00	0.00	0.27
Rose-breasted Grosbeak		0.10	0.10	0.10	0.10	0.00		0.10	0.00	0.07
Common Grackle		0.00	0.00	0.00	0.00	0.00		0.10	0.00	0.01
Brown-headed Cowbird		0.00	0.10	0.00	0.00	0.00		0.00	0.10	0.03
Baltimore Oriole		0.60	0.10	0.60	0.20	0.00		0.20	0.30	0.29
<i>Points Surveyed:</i>										
		10	10	10	10	10		10	10	
<i>Ave # Birds Per Point:</i>		10.70	16.60	9.00	9.90	7.90		7.30	8.80	10.03
<i>Species Richness:</i>		23	30	21	22	19		22	22	37
<i>Shannon Diversity:</i>		2.82	3.01	2.72	2.71	2.67		2.84	2.88	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Morristown NHP

MORR Soldier's Huts

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Wild Turkey		0.00	0.00			0.00	0.00	0.00	0.11	0.02
Turkey Vulture		0.11	0.00			0.00	0.00	0.00	0.00	0.02
Red-tailed Hawk		0.00	0.00			0.22	0.00	0.11	0.11	0.07
Mourning Dove		0.00	0.00			0.67	0.00	0.67	0.22	0.26
Yellow-billed Cuckoo	CBSD	0.00	0.00			0.33	0.00	0.00	0.67	0.17
Eastern Screech-Owl		0.00	0.00			0.00	0.00	0.11	0.00	0.02
Great Horned Owl		0.00	0.00			0.22	0.33	0.44	0.67	0.28
Barred Owl		0.00	0.00			0.00	0.22	0.00	0.00	0.04
Red-bellied Woodpecker		0.44	0.11			0.89	0.44	0.33	0.44	0.44
Downy Woodpecker	RS UCS	0.00	0.11			0.56	0.22	0.44	0.33	0.28
Hairy Woodpecker		0.00	0.00			0.11	0.22	0.78	0.33	0.24
Northern Flicker (Yellow-shafted Flicker)		0.22	0.33			0.67	0.33	0.56	0.56	0.44
Pileated Woodpecker	UCS	0.22	0.11			0.44	0.33	0.56	0.33	0.33
Eastern Wood-Pewee	RC	0.67	1.00			1.00	1.00	0.56	1.89	1.02
Acadian Flycatcher	RC RS UCS	0.00	0.00			0.11	0.00	0.00	0.00	0.02
Eastern Phoebe	UCS	0.00	0.00			0.11	0.00	0.11	0.00	0.04
Great Crested Flycatcher		0.11	0.11			0.11	0.33	0.00	0.00	0.11
Yellow-throated Vireo	RC RS UCS	0.00	0.22			0.00	0.11	0.11	0.11	0.09
Red-eyed Vireo	UCS	0.89	0.89			1.00	0.89	0.78	0.44	0.81
<i>Blue Jay</i>		0.22	0.33			0.78	1.22	1.44	0.89	0.81
American Crow		0.00	0.11			0.67	0.11	0.56	0.00	0.24
Fish Crow		0.00	0.00			0.11	0.00	0.00	0.00	0.02
Black-capped Chickadee		0.11	0.00			0.11	0.00	0.00	0.00	0.04
Tufted Titmouse	UCS	0.56	0.44			1.00	0.22	1.11	0.78	0.69
White-breasted Nuthatch	UCS	0.11	0.00			0.67	0.44	0.89	0.11	0.37

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;

UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Morristown NHP

MORR Soldier's Huts

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Blue-gray Gnatcatcher		0.00	0.00			0.44	0.11	0.33	0.00	0.15
Eastern Bluebird	UCS	0.00	0.00			0.00	0.00	0.00	0.11	0.02
Veery		0.44	0.78			1.89	1.56	1.78	1.44	1.31
Wood Thrush	RC RS UCC UCS	1.11	1.22			2.11	2.11	1.89	1.67	1.69
American Robin		0.67	0.78			1.33	0.67	0.89	0.67	0.83
Gray Catbird	UCS	0.11	0.22			0.33	0.56	1.33	0.33	0.48
Cedar Waxwing	UCS	0.11	0.00			0.00	0.00	0.00	0.00	0.02
Black-throated Blue Warbler		0.00	0.00			0.00	0.00	0.00	0.22	0.04
Blackpoll Warbler		0.56	0.00			0.00	0.00	0.00	0.00	0.09
Cerulean Warbler	RC RS UCC UCS	0.00	0.00			0.11	0.00	0.00	0.00	0.02
Black-and-white Warbler	RC	0.11	0.00			0.00	0.00	0.00	0.00	0.02
American Redstart		0.44	0.67			0.67	0.44	0.89	0.67	0.63
Worm-eating Warbler	RC RS UCS	0.00	0.00			0.00	0.00	0.11	0.00	0.02
Overbird		0.78	1.11			2.33	0.89	1.89	1.78	1.46
Louisiana Waterthrush	RC RS UCS	0.33	0.11			0.00	0.22	0.00	0.11	0.13
Kentucky Warbler	RC UCC	0.00	0.11			0.00	0.00	0.00	0.00	0.02
Common Yellowthroat	UCS	0.00	0.00			0.00	0.11	0.00	0.00	0.02
Hooded Warbler	RS UCS	0.22	0.22			0.44	0.33	0.89	0.56	0.44
Canada Warbler	UCC	0.11	0.00			0.00	0.00	0.00	0.00	0.02
Scarlet Tanager	RS UCS	0.56	0.33			1.00	1.22	1.00	1.44	0.93
Eastern Towhee	RC RS UCS	0.56	0.67			1.44	0.56	1.00	1.11	0.89
Chipping Sparrow		0.00	0.11			0.00	0.00	0.00	0.00	0.02
Northern Cardinal		0.00	0.00			0.11	0.22	0.11	0.11	0.09
Rose-breasted Grosbeak		0.00	0.33			0.11	0.11	0.67	0.00	0.20
Indigo Bunting	UCS	0.00	0.00			0.00	0.00	0.00	0.11	0.02

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;

UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Morristown NHP

MORR Soldier's Huts

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Brown-headed Cowbird		0.22	0.22			0.22	0.22	0.00	0.67	0.26
Baltimore Oriole		0.33	0.11			0.11	0.00	0.11	0.22	0.15
<i>Points Surveyed:</i>										
<i>Ave # Birds Per Point:</i>		9	9			9	9	9	9	
		10.33	10.78			22.44	15.78	22.44	19.22	16.83
<i>Species Richness:</i>		27	26			35	30	31	32	52
<i>Shannon Diversity:</i>		3.06	2.94			3.18	3.07	3.17	3.12	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Middle Ravine

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Canada Goose		0.00	0.00	0.10					0.00	0.03
<i>Mourning Dove</i>		0.80	0.80	0.60					1.00	0.80
Red-bellied Woodpecker		0.00	0.00	0.00					0.25	0.08
Yellow-bellied Sapsucker		0.10	0.10	0.30					0.25	0.22
Downy Woodpecker		0.20	0.20	0.50					0.00	0.23
Northern Flicker (Yellow-shafted Flicker)		0.20	0.20	0.00					0.13	0.11
Eastern Wood-Pewee	RC	0.50	0.50	0.80					1.13	0.81
Eastern Phoebe		0.10	0.10	0.00					0.00	0.03
Great Crested Flycatcher		0.50	0.50	0.50					0.13	0.38
<i>Red-eyed Vireo</i>		0.60	0.60	0.70					0.50	0.60
<i>Blue Jay</i>		0.50	0.50	0.60					0.50	0.53
American Crow		0.60	0.60	0.40					0.50	0.50
<i>Black-capped Chickadee</i>		1.00	1.00	0.70					0.13	0.61
Tufted Titmouse		0.30	0.30	0.40					0.13	0.28
Red-breasted Nuthatch		0.00	0.00	0.10					0.25	0.12
White-breasted Nuthatch		0.20	0.20	0.10					0.13	0.14
Brown Creeper		0.10	0.10	0.30					0.13	0.18
House Wren		0.00	0.00	0.00					0.38	0.13
Winter Wren		0.10	0.10	0.00					0.00	0.03
Veery	RC	0.20	0.20	0.30					0.00	0.17
Hermit Thrush		0.20	0.20	0.40					0.25	0.28
Wood Thrush	RC UCC	0.80	0.80	0.30					0.00	0.37
<i>American Robin</i>		1.40	1.40	0.50					0.50	0.80
Gray Catbird		0.00	0.00	0.00					0.25	0.08
Cedar Waxwing	UCS	0.40	0.40	0.00					0.13	0.18

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Middle Ravine

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
<i>Relative Abundance (birds per point)</i>										
Blue-winged Warbler	RC RS UCS		0.00	0.10					0.25	0.12
Golden-winged Warbler	RC UCC		0.10	0.00					0.00	0.03
Chestnut-sided Warbler			0.10	0.00					0.00	0.03
Yellow-rumped Warbler (Myrtle Warbler)			0.00	0.20					0.00	0.07
Black-throated Green Warbler			0.00	0.00					0.13	0.04
American Redstart			0.10	0.00					0.25	0.12
Overbird			1.90	1.30					1.88	1.69
Common Yellowthroat			0.80	0.80					1.38	0.99
Scarlet Tanager			0.40	0.40					0.13	0.31
Eastern Towhee	RC		0.60	0.50					0.88	0.66
Chipping Sparrow			0.30	0.00					0.00	0.10
Field Sparrow	CBSD RC		0.20	0.20					0.63	0.34
Song Sparrow	UCS		0.40	0.30					0.25	0.32
Northern Cardinal			0.10	0.40					0.00	0.17
Rose-breasted Grosbeak			0.10	0.20					0.50	0.27
Red-winged Blackbird			0.20	0.40					0.25	0.28
Brown-headed Cowbird			0.10	0.20					0.00	0.10
Baltimore Oriole	RC RS UCS		0.10	0.00					0.13	0.08
American Goldfinch	UCS		1.20	1.20					0.38	0.93
<i>Points Surveyed:</i>										
		10	10	10					8	
<i>Ave # Birds Per Point:</i>										
		15.50	13.80						13.63	14.31
<i>Species Richness:</i>										
		36	31						32	44
<i>Shannon Diversity:</i>										
		3.20	3.24						3.11	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Wilkinson Trail

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Canada Goose				0.10	0.00	0.00		0.00		0.03
Broad-winged Hawk				0.00	0.00	0.00		0.30		0.08
Mourning Dove				0.10	0.00	0.30		0.10		0.13
Black-billed Cuckoo	CBSD RC RS UCC UCS			0.10	0.00	0.00		0.00		0.03
Yellow-billed Cuckoo	CBSD			0.10	0.00	0.00		0.00		0.03
Red-bellied Woodpecker				0.00	0.10	0.20		0.20		0.13
<i>Yellow-bellied Sapsucker</i>				0.20	0.60	1.60		1.10		0.88
Downy Woodpecker				0.30	0.00	0.50		0.10		0.23
Hairy Woodpecker				0.00	0.00	0.10		0.10		0.05
Northern Flicker (Yellow-shafted Flicker)				0.00	0.10	0.00		0.00		0.03
Pileated Woodpecker				0.10	0.10	0.20		0.20		0.15
<i>Eastern Wood-Pewee</i>	RC			1.20	1.20	0.90		0.80		1.03
Acadian Flycatcher				0.10	0.00	0.00		0.00		0.03
Least Flycatcher	RC			0.20	0.00	0.00		0.00		0.05
Eastern Phoebe				0.30	0.00	0.10		0.10		0.13
<i>Great Crested Flycatcher</i>				0.90	0.60	0.40		1.00		0.73
Yellow-throated Vireo				0.00	0.00	0.10		0.00		0.03
<i>Red-eyed Vireo</i>				1.20	0.50	1.10		1.20		1.00
Blue Jay				0.30	0.30	0.40		0.30		0.33
American Crow				0.50	0.40	0.60		0.00		0.38
<i>Black-capped Chickadee</i>				1.20	0.80	0.70		0.70		0.85
Tufted Titmouse				0.40	0.10	0.20		0.50		0.30
Red-breasted Nuthatch				0.10	0.00	0.10		0.00		0.05
White-breasted Nuthatch				0.10	0.20	0.40		0.30		0.25
Brown Creeper				0.40	0.30	0.40		0.60		0.43

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Wilkinson Trail

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
House Wren				0.00	0.00	0.10		0.00		0.03
Blue-gray Gnatcatcher				0.10	0.00	0.00		0.00		0.03
Veery	RC			0.20	0.60	1.20		0.30		0.58
Hermit Thrush				0.00	0.70	0.30		0.10		0.28
Wood Thrush	RC UCC			0.60	0.00	0.40		0.30		0.33
American Robin				0.60	0.20	0.20		0.20		0.30
Gray Catbird				0.40	0.20	0.30		0.60		0.38
Cedar Waxwing	UCS			0.00	0.70	0.20		0.20		0.28
Blue-winged Warbler	RC RS UCS			0.00	0.00	0.10		0.00		0.03
Yellow Warbler				0.00	0.00	0.40		0.00		0.10
Chestnut-sided Warbler				0.40	0.10	0.10		0.40		0.25
<i>Ovenbird</i>				1.70	0.90	1.40		1.80		1.45
Northern Waterthrush				0.10	0.00	0.00		0.00		0.03
Louisiana Waterthrush				0.20	0.00	0.00		0.00		0.05
<i>Common Yellowthroat</i>				0.90	0.50	0.70		1.10		0.80
<i>Scarlet Tanager</i>				0.60	0.40	0.80		0.40		0.55
Eastern Towhee	RC			0.10	0.10	0.40		0.00		0.15
Chipping Sparrow				0.20	0.10	0.20		0.00		0.13
Field Sparrow	CBSD RC			0.00	0.00	0.00		0.20		0.05
Song Sparrow	UCS			0.10	0.00	0.30		0.20		0.15
Northern Cardinal				0.10	0.40	0.40		0.10		0.25
Rose-breasted Grosbeak				0.20	0.00	0.00		0.00		0.05
Indigo Bunting				0.20	0.00	0.00		0.00		0.05
Red-winged Blackbird				0.00	0.00	0.10		0.00		0.03
Common Grackle				0.00	0.00	0.20		0.00		0.05

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Wilkinson Trail

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Brown-headed Cowbird				0.00	0.00	0.00		0.70		0.18
Baltimore Oriole	RC RS UCS			0.00	0.00	0.20		0.00		0.05
American Goldfinch	UCS			0.60	0.40	0.70		0.80		0.63
<i>Points Surveyed:</i>										
<i>Ave # Birds Per Point:</i>										
<i>Species Richness:</i>										
<i>Shannon Diversity:</i>										
				10	10	10		10		
				15.20	10.60	17.00		15.00		14.45
				38	26	39		31		53
				3.25	3.01	3.36		3.12		

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Bemis Heights

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Mourning Dove				0.33	1.00	0.17	0.50			0.50
Ruby-throated Hummingbird				0.00	0.17	0.00	0.00			0.04
Red-bellied Woodpecker				0.00	0.17	0.17	0.00			0.08
Yellow-bellied Sapsucker				0.17	0.50	0.67	0.00			0.33
Downy Woodpecker				0.00	0.33	0.00	1.00			0.33
Pileated Woodpecker				0.17	0.33	0.33	0.00			0.21
Eastern Wood-Pewee	RC			0.50	0.67	0.50	0.00			0.42
Alder Flycatcher				0.17	0.00	0.00	0.00			0.04
Eastern Phoebe				0.17	0.00	0.00	0.00			0.04
Great Crested Flycatcher				0.00	0.17	0.17	0.00			0.08
Red-eyed Vireo				0.83	0.17	0.50	0.00			0.38
Blue Jay				0.83	1.00	0.67	0.50			0.75
American Crow				0.17	0.17	0.50	1.00			0.46
Black-capped Chickadee				0.83	0.33	0.33	0.50			0.50
Tufted Titmouse				1.17	0.00	0.00	0.00			0.29
White-breasted Nuthatch				0.17	0.33	1.00	0.00			0.38
Blue-gray Gnatcatcher				0.33	0.00	0.00	0.00			0.08
Veery	RC			0.67	0.83	0.33	0.50			0.58
Hermit Thrush				0.00	0.17	0.33	0.00			0.13
Wood Thrush	RC UCC			1.83	1.17	1.67	0.50			1.29
American Robin				0.67	0.83	1.00	1.50			1.00
Gray Catbird				0.00	0.17	0.33	1.00			0.38
Cedar Waxwing	UCS			0.33	0.00	0.00	0.00			0.08
Blue-winged Warbler	RC RS UCS			0.17	0.00	0.00	0.00			0.04
Yellow Warbler				0.00	0.00	0.17	0.00			0.04

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Bemis Heights

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Chestnut-sided Warbler				0.17	0.00	0.00	0.00			0.04
Black-and-white Warbler				0.33	0.00	0.17	0.00			0.13
Ovenbird				1.33	1.33	1.67	0.00			1.08
Louisiana Waterthrush				0.17	0.00	0.00	0.00			0.04
Common Yellowthroat				1.33	0.33	0.00	0.50			0.54
Scarlet Tanager				0.83	0.50	0.17	0.00			0.38
Eastern Towhee	RC			0.33	0.17	0.33	1.00			0.46
Chipping Sparrow				0.17	0.00	0.00	0.00			0.04
Field Sparrow	CBSD RC			0.00	0.00	0.00	0.50			0.13
Northern Cardinal				0.00	0.17	0.00	0.00			0.04
Rose-breasted Grosbeak				0.00	0.33	0.00	0.50			0.21
Red-winged Blackbird				0.00	0.00	0.00	1.00			0.25
Brown-headed Cowbird				0.17	0.33	0.67	0.00			0.29
Baltimore Oriole	RC RS UCS			0.00	0.17	0.17	0.00			0.08
American Goldfinch	UCS			0.67	0.17	0.00	0.00			0.21
Points Surveyed:										
Ave # Birds Per Point:										
				6	6	6	2			
Species Richness:										
				15.00	12.00	12.00	10.50			12.38
Shannon Diversity:										
				28	27	23	14			40
				3.03	3.03	2.85	2.56			

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Burgoyne's Headquarters

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Canada Goose		0.20		0.20	0.00	0.00	0.00	0.00	0.00	0.06
Wild Turkey		0.00		0.00	0.00	0.00	0.00	0.20	0.00	0.03
Great Blue Heron		0.00		0.00	0.00	0.00	0.00	0.00	0.20	0.03
Turkey Vulture		0.00		0.00	0.20	0.00	0.20	0.00	0.00	0.06
Red-tailed Hawk		0.00		0.00	0.00	0.20	0.00	0.40	0.20	0.11
American Kestrel	RC	0.00		0.00	0.00	0.00	0.60	0.00	0.60	0.17
Mourning Dove		0.60		0.60	0.00	0.80	0.40	0.40	0.80	0.51
Black-billed Cuckoo	CBSD RC RS UCC UCS	0.00		0.20	0.00	0.00	0.00	0.00	0.00	0.03
Red-bellied Woodpecker		1.00		0.20	0.00	0.00	0.00	0.00	0.40	0.23
Yellow-bellied Sapsucker		0.40		0.20	0.40	0.20	0.20	0.00	0.00	0.20
Downy Woodpecker		0.00		0.20	0.00	0.00	0.00	0.20	0.00	0.06
Hairy Woodpecker		0.00		0.00	0.00	0.60	0.20	0.00	0.00	0.11
Northern Flicker (Yellow-shafted Flicker)		0.60		0.00	0.00	0.80	0.40	1.00	0.20	0.43
Pileated Woodpecker		0.20		0.00	0.00	0.00	0.00	0.20	0.00	0.06
Eastern Wood-Pewee	RC	0.40		0.40	0.00	0.80	0.00	0.20	0.40	0.31
Alder Flycatcher		0.00		0.20	0.00	0.00	0.00	0.00	0.00	0.03
Least Flycatcher	RC	0.00		0.40	0.00	0.00	0.00	0.00	0.00	0.06
Eastern Phoebe		0.00		0.00	0.00	0.40	0.00	0.00	0.00	0.06
Great Crested Flycatcher		0.20		0.00	0.00	0.00	0.00	0.00	0.20	0.06
Eastern Kingbird	RC	0.60		0.60	0.40	1.60	0.80	1.00	0.60	0.80
Warbling Vireo		0.20		0.20	0.00	0.00	0.40	0.00	0.20	0.14
Red-eyed Vireo		0.00		0.00	0.40	0.00	0.20	0.20	0.60	0.20
Blue Jay		0.40		0.20	0.00	0.20	0.20	0.00	1.40	0.34
American Crow		0.20		0.20	0.20	0.00	1.00	0.00	0.00	0.23
Common Raven		0.20		0.00	0.00	0.00	0.00	0.00	0.00	0.03

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Burgoyne's Headquarters

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
<i>Tree Swallow</i>	UCS	0.60	1.00	0.40	1.60	2.00	1.60	0.00	1.03	
Northern Rough-winged Swallow		0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.09	
Black-capped Chickadee		1.00	0.00	0.00	0.20	0.00	0.00	0.40	0.23	
Tufted Titmouse		0.60	0.00	0.00	0.20	0.00	0.00	0.00	0.11	
White-breasted Nuthatch		0.40	0.00	0.00	0.00	0.00	0.20	0.00	0.09	
House Wren		0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.06	
Blue-gray Gnatcatcher		0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.03	
Eastern Bluebird		0.60	0.00	0.00	2.00	1.00	2.00	0.40	0.86	
Veery	RC	0.20	0.00	0.00	0.20	0.00	0.00	0.00	0.06	
Wood Thrush	RC UCC	0.80	0.00	0.20	0.00	0.20	0.60	0.00	0.26	
American Robin		0.80	0.80	0.40	0.40	0.40	0.00	1.80	0.66	
Gray Catbird		0.60	0.20	0.20	0.20	0.40	0.00	1.40	0.43	
Brown Thrasher	RC	0.00	0.00	0.00	0.00	0.00	0.20	0.80	0.14	
Cedar Waxwing	UCS	0.60	0.60	0.20	0.00	1.00	1.40	0.00	0.54	
Blue-winged Warbler	RC RS UCS	0.00	0.60	0.40	0.00	0.00	0.00	0.00	0.14	
Yellow Warbler		0.00	0.20	0.60	0.20	0.80	0.00	0.00	0.26	
Chestnut-sided Warbler		0.00	0.00	0.00	0.40	0.00	0.20	0.00	0.09	
Prairie Warbler	CBSD UCC	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.14	
Black-and-white Warbler		0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.03	
American Redstart		0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.06	
Ovenbird		0.20	0.00	0.00	0.40	0.20	0.20	0.00	0.14	
Common Yellowthroat		0.60	1.00	1.20	1.60	1.80	2.60	0.60	1.34	
Scarlet Tanager		0.00	0.00	0.00	0.00	0.20	0.00	0.20	0.06	
Eastern Towhee	RC	0.00	0.00	0.00	0.00	1.00	0.40	2.40	0.54	
Chipping Sparrow		1.20	0.80	0.80	0.20	0.40	1.20	0.20	0.69	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Burgoyne's Headquarters

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
<i>Field Sparrow</i>	CBSD RC	1.40		2.00	1.80	2.80	2.40	3.20	2.80	2.34
<i>Vesper Sparrow</i>	RC	0.00		0.40	0.00	0.00	0.00	0.00	0.00	0.06
<i>Savannah Sparrow</i>	RC	0.00		0.40	0.00	0.00	0.00	0.00	0.00	0.06
<i>Song Sparrow</i>	UCS	1.40		1.00	0.20	0.60	0.80	0.40	0.80	0.74
<i>Northern Cardinal</i>		0.20		0.00	0.00	0.00	0.60	0.00	0.00	0.11
<i>Rose-breasted Grosbeak</i>		0.20		0.20	0.20	0.00	0.00	0.00	0.00	0.09
<i>Indigo Bunting</i>		0.00		0.20	0.00	0.00	0.00	0.00	0.00	0.03
<i>Red-winged Blackbird</i>		2.80		2.40	1.20	2.40	3.20	7.60	2.20	3.11
<i>Eastern Meadowlark</i>	CBSD RC	0.20		0.40	0.60	0.00	0.20	0.00	0.00	0.20
<i>Common Grackle</i>		0.40		0.00	0.00	0.00	0.20	0.00	0.00	0.09
<i>Brown-headed Cowbird</i>		0.00		0.00	0.00	0.00	0.20	0.00	0.00	0.03
<i>Orchard Oriole</i>		0.60		0.00	0.20	0.00	0.00	0.00	0.00	0.11
<i>Baltimore Oriole</i>	RC RS UCS	0.20		0.40	0.40	1.20	0.60	0.00	0.00	0.40
<i>American Goldfinch</i>	UCS	1.40		1.80	0.60	0.80	1.20	1.60	1.20	1.23
Points Surveyed:										
Ave # Birds Per Point:		5	5	5	5	5	5	5	5	
Species Richness:		22.60	18.20	11.60	21.00	23.40	29.20	21.00	21.00	
Shannon Diversity:		37	31	24	26	32	27	25	64	
		3.34	3.09	2.92	2.89	3.10	2.69	2.88		

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Freeman Farm

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Canada Goose		0.10	0.10	0.10	0.00	0.00	0.00	0.10	0.00	0.05
Great Blue Heron		0.30	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.05
Turkey Vulture		0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.03
Cooper's Hawk		0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.01
Red-tailed Hawk		0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
American Kestrel	RC	0.30	0.00	0.00	0.10	0.10	0.20	0.30	0.10	0.14
American Woodcock		0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.03
Mourning Dove		0.30	0.40	0.50	0.30	0.90	0.80	0.90	0.50	0.58
Black-billed Cuckoo	CBSD RC RS UCC UCS	0.40	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.06
Yellow-billed Cuckoo	CBSD	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Ruby-throated Hummingbird		0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Red-bellied Woodpecker		0.10	0.00	0.10	0.00	0.00	0.00	0.10	0.00	0.04
Yellow-bellied Sapsucker		0.00	0.00	0.00	0.10	0.20	0.10	0.00	0.10	0.06
Downy Woodpecker		0.00	0.00	0.10	0.00	0.00	0.20	0.00	0.00	0.04
Hairy Woodpecker		0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.01
Northern Flicker (Yellow-shafted Flicker)		0.20	0.10	0.20	0.00	0.30	0.20	0.30	0.00	0.16
Pileated Woodpecker		0.00	0.00	0.00	0.30	0.10	0.00	0.20	0.30	0.11
Eastern Wood-Pewee	RC	0.20	0.20	0.30	0.00	0.40	0.30	0.50	0.50	0.30
Alder Flycatcher		0.00	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.03
Willow Flycatcher	UCS	0.00	0.00	0.10	0.00	0.10	0.00	0.00	0.10	0.04
Eastern Phoebe		0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.01
Great Crested Flycatcher		0.40	0.60	0.40	0.10	0.10	0.10	0.00	0.00	0.21
Eastern Kingbird	RC	0.30	0.20	0.30	0.70	0.80	1.00	0.50	0.20	0.50
Yellow-throated Vireo		0.00	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.03
Warbling Vireo		0.10	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.03

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;

UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Freeman Farm

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point)</i>							
		2006	2007	2008	2009	2010	2011	2012	2013
Red-eyed Vireo		0.40	0.40	0.10	0.00	0.20	0.00	0.10	0.00
Blue Jay		0.40	0.30	0.20	0.50	0.30	0.50	0.20	0.50
American Crow		1.60	0.90	0.90	1.50	1.20	0.70	1.80	0.40
Common Raven		0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00
Tree Swallow	UCS	0.40	0.80	0.30	0.00	1.00	0.80	0.10	0.00
Black-capped Chickadee		0.40	0.40	0.00	0.90	0.40	0.20	0.60	0.20
Tufted Titmouse		0.70	0.30	0.10	0.00	0.10	0.10	0.00	0.00
White-breasted Nuthatch		0.10	0.10	0.00	0.30	0.00	0.00	0.00	0.10
House Wren		0.30	0.00	0.10	0.20	0.20	0.00	0.00	0.00
Eastern Bluebird		0.30	0.00	0.10	0.00	0.00	0.20	0.30	0.10
Hermit Thrush		0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.01
Wood Thrush	RC UCC	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.03
American Robin		0.00	0.40	0.70	0.50	0.80	1.80	0.80	0.80
Gray Catbird		0.00	0.10	0.20	0.00	0.70	0.10	0.00	0.50
Northern Mockingbird		0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.01
European Starling		0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Cedar Waxwing	UCS	0.10	0.80	0.00	0.00	0.20	0.50	0.70	0.20
Blue-winged Warbler	RC RS UCS	0.40	0.40	0.10	0.10	0.30	0.20	0.00	0.30
Golden-winged Warbler	RC UCC	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.01
Yellow Warbler		0.40	0.20	0.30	0.10	0.20	0.00	0.00	0.10
Chestnut-sided Warbler		0.20	0.10	0.50	0.00	0.00	0.00	0.00	0.10
Prairie Warbler	CBSD UCC	0.00	0.30	0.30	0.00	0.90	0.00	0.20	0.00
Ovenbird		0.50	0.40	0.40	0.10	0.00	0.00	0.40	0.23
Common Yellowthroat		1.10	0.80	0.80	1.60	3.10	1.90	2.60	1.74
Scarlet Tanager		0.20	0.00	0.00	0.00	0.00	0.10	0.00	0.04

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;

UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Freeman Farm

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point)</i>									<i>Mean</i>
		2006	2007	2008	2009	2010	2011	2012	2013		
<i>Eastern Towhee</i>	RC	0.20	0.00	0.40	0.40	1.00	0.60	1.90	0.80	0.66	
Chipping Sparrow		0.40	0.70	0.60	0.80	0.80	0.50	0.90	0.00	0.59	
<i>Field Sparrow</i>	CBSD RC	1.40	0.90	1.60	1.50	2.40	1.50	2.00	2.80	1.76	
Vesper Sparrow	RC	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.01	
<i>Song Sparrow</i>	UCS	2.30	2.00	1.10	1.70	1.70	1.80	2.80	1.20	1.83	
Northern Cardinal		0.50	0.20	0.30	0.20	0.00	0.00	0.00	0.00	0.15	
Indigo Bunting		0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
<i>Bobolink</i>	CBSD RC RS UCC UCS	0.30	1.20	1.10	0.90	4.00	4.10	0.70	2.40	1.84	
Red-winged Blackbird		0.70	1.20	2.10	2.60	4.50	4.50	6.90	5.10	3.45	
<i>Eastern Meadowlark</i>	CBSD RC	0.90	0.30	0.70	1.20	1.00	0.40	0.50	0.80	0.73	
Common Grackle		0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.01	
Baltimore Oriole	RC RS UCS	1.00	0.40	0.20	0.40	0.30	0.30	0.00	0.00	0.33	
Purple Finch		0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
<i>American Goldfinch</i>	UCS	0.50	1.10	0.90	1.10	1.90	1.60	1.10	0.90	1.14	
<i>Points Surveyed:</i>											
<i>Ave # Birds Per Point:</i>		10	10	10	10	10	10	10	10	10	
<i>Species Richness:</i>		19.10	16.90	16.60	18.50	30.60	25.70	27.60	21.10	22.01	
<i>Shannon Diversity:</i>		43	36	38	29	35	32	28	26	64	
		3.39	3.24	3.22	2.93	2.98	2.84	2.71	2.61		

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Neilson Farm

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Canada Goose		0.20		0.00	0.00	0.10	0.10	0.10	0.20	0.10
Northern Bobwhite		0.10		0.00	0.00	0.00	0.00	0.00	0.00	0.01
Great Blue Heron		0.00		0.00	0.10	0.10	0.00	0.10	0.00	0.04
Turkey Vulture		0.00		0.00	0.00	0.10	0.10	0.10	0.10	0.06
Northern Harrier	RC	0.10		0.00	0.00	0.00	0.00	0.00	0.00	0.01
Sharp-shinned Hawk		0.00		0.00	0.00	0.00	0.10	0.00	0.00	0.01
Red-tailed Hawk		0.00		0.00	0.00	0.10	0.00	0.00	0.00	0.01
American Kestrel	RC	0.10		0.20	0.10	0.30	0.10	0.00	0.00	0.11
Killdeer		0.00		0.00	0.00	0.00	0.00	0.00	0.20	0.03
American Woodcock		0.00		0.00	0.10	0.20	0.60	0.00	0.20	0.16
Mourning Dove		0.00		0.50	0.20	0.30	0.20	0.00	0.20	0.20
Red-bellied Woodpecker		0.10		0.00	0.00	0.00	0.00	0.00	0.00	0.01
Yellow-bellied Sapsucker		0.00		0.00	0.00	0.00	0.00	0.00	0.10	0.01
Downy Woodpecker		0.00		0.00	0.00	0.00	0.20	0.00	0.00	0.03
Northern Flicker (Yellow-shafted Flicker)		0.00		0.00	0.00	0.10	0.10	0.00	0.00	0.03
Pileated Woodpecker		0.10		0.00	0.00	0.10	0.00	0.00	0.10	0.04
Eastern Wood-Pewee	RC	0.00		0.20	0.10	0.10	0.00	0.20	0.20	0.11
Alder Flycatcher		0.00		0.10	0.00	0.00	0.00	0.00	0.00	0.01
Willow Flycatcher	UCS	0.20		0.70	0.00	0.00	0.10	0.20	0.00	0.17
Least Flycatcher	RC	0.00		0.00	0.10	0.00	0.00	0.00	0.00	0.01
Eastern Phoebe		0.00		0.00	0.00	0.10	0.10	0.20	0.10	0.07
Great Crested Flycatcher		0.00		0.00	0.10	0.20	0.00	0.10	0.00	0.06
Eastern Kingbird	RC	0.60		0.20	0.30	1.20	0.30	0.60	0.30	0.50
Warbling Vireo		0.00		0.00	0.00	0.00	0.00	0.10	0.00	0.01
Red-eyed Vireo		0.00		0.00	0.10	0.00	0.10	0.00	0.00	0.03

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Neilson Farm

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Blue Jay		0.20		0.20	0.00	0.00	0.30	0.20	0.20	0.16
American Crow		0.50		0.90	2.30	0.90	1.20	0.80	1.00	1.09
Tree Swallow	UCS	0.00		0.20	0.00	0.90	1.00	1.40	0.60	0.59
Barn Swallow	RC	0.00		0.00	0.00	0.00	0.10	0.00	0.00	0.01
Black-capped Chickadee		0.10		0.00	0.10	0.10	0.50	0.00	0.10	0.13
Tufted Titmouse		0.30		0.00	0.00	0.10	0.00	0.00	0.10	0.07
White-breasted Nuthatch		0.10		0.00	0.00	0.10	0.20	0.00	0.10	0.07
House Wren		0.50		0.00	0.00	0.50	0.00	0.00	0.00	0.14
Blue-gray Gnatcatcher		0.00		0.00	0.00	0.00	0.10	0.00	0.00	0.01
Eastern Bluebird		0.20		0.00	0.00	0.00	0.40	0.00	0.20	0.11
American Robin		0.70		0.60	0.10	0.30	0.30	0.10	0.00	0.30
Gray Catbird		0.20		0.10	0.30	0.10	0.60	0.10	0.60	0.29
Northern Mockingbird		0.00		0.00	0.00	0.40	0.30	0.00	0.00	0.10
Brown Thrasher	RC	0.20		0.00	0.00	0.00	0.00	0.00	0.00	0.03
European Starling		0.80		0.00	0.70	0.30	0.10	0.00	0.00	0.27
Cedar Waxwing	UCS	0.50		0.60	0.10	1.00	0.90	1.70	0.60	0.77
Blue-winged Warbler	RC RS UCS	0.10		0.40	0.00	0.00	0.40	0.10	0.40	0.20
Yellow Warbler		0.40		0.40	0.10	0.20	0.50	0.30	0.00	0.27
Chestnut-sided Warbler		0.00		0.00	0.00	0.40	0.00	0.00	0.00	0.06
Prairie Warbler	CBSD UCC	0.20		0.00	0.00	0.10	0.00	0.10	0.00	0.06
American Redstart		0.10		0.00	0.00	0.00	0.00	0.00	0.00	0.01
<i>Common Yellowthroat</i>		0.70		1.00	1.50	1.20	1.10	1.40	1.40	1.19
Scarlet Tanager		0.30		0.00	0.00	0.00	0.00	0.00	0.00	0.04
Eastern Towhee	RC	0.30		0.20	0.30	0.00	0.20	0.10	0.50	0.23
Chipping Sparrow		0.00		0.10	0.00	0.10	0.00	0.10	0.00	0.04

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Neilson Farm

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
<i>Relative Abundance (birds per point)</i>										
<i>Field Sparrow</i>	CBSD RC	0.60		0.60	0.70	1.40	0.60	0.20	1.70	0.83
<i>Savannah Sparrow</i>	RC	0.20		0.00	0.20	0.00	0.30	0.00	0.30	0.14
<i>Song Sparrow</i>	UCS	1.60		1.30	2.50	1.60	1.80	2.00	0.90	1.67
<i>Northern Cardinal</i>		0.10		0.40	0.00	0.00	0.20	0.20	0.00	0.13
<i>Rose-breasted Grosbeak</i>		0.10		0.10	0.00	0.00	0.00	0.00	0.00	0.03
<i>Bobolink</i>	CBSD RC RS UCC UCS	3.40		2.20	6.10	8.90	20.70	9.40	13.30	9.14
<i>Red-winged Blackbird</i>		2.20		5.60	5.20	6.80	8.30	9.40	9.20	6.67
<i>Eastern Meadowlark</i>	CBSD RC	0.60		1.30	2.80	2.30	2.90	3.20	2.00	2.16
<i>Common Grackle</i>		0.10		0.00	0.10	0.00	0.00	0.00	0.00	0.03
<i>Baltimore Oriole</i>	RC RS UCS	0.00		0.40	0.00	0.00	0.00	0.00	0.00	0.06
<i>American Goldfinch</i>	UCS	0.40		0.80	1.20	1.60	1.10	0.80	0.90	0.97
<i>Points Surveyed:</i>										
		10		10	10	10	10	10	10	
<i>Ave # Birds Per Point:</i>										
		17.20		19.30	25.50	32.30	46.20	33.30	35.80	29.94
<i>Species Richness:</i>										
		37		26	26	35	37	28	29	61
<i>Shannon Diversity:</i>										
		3.03		2.65	2.36	2.55	2.18	2.20	2.15	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Northwest

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
Green Heron								0.13	0.00	0.06
Red-tailed Hawk								0.00	0.13	0.06
Mourning Dove								0.00	0.63	0.31
Red-bellied Woodpecker								0.25	0.50	0.38
Yellow-bellied Sapsucker								0.75	0.00	0.38
<i>Downy Woodpecker</i>								0.63	0.25	0.44
Hairy Woodpecker								0.00	0.13	0.06
<i>Eastern Wood-Pewee</i>	RC							0.63	0.50	0.56
<i>Willow Flycatcher</i>	UCS							0.13	0.00	0.06
Great Crested Flycatcher								0.00	0.25	0.13
Yellow-throated Vireo								0.13	0.00	0.06
Blue-headed Vireo								0.13	0.13	0.13
Blue Jay								0.25	0.38	0.31
<i>American Crow</i>								1.38	1.13	1.25
<i>Black-capped Chickadee</i>								0.75	0.75	0.75
Tufted Titmouse								0.13	0.13	0.13
White-breasted Nuthatch								0.38	0.38	0.38
House Wren								0.13	0.25	0.19
<i>Veery</i>	RC							0.63	0.63	0.63
Hermit Thrush								0.13	0.00	0.06
<i>Wood Thrush</i>	RC UCS							0.13	0.38	0.25
<i>American Robin</i>								0.38	0.75	0.56
<i>Gray Catbird</i>								0.38	0.88	0.63
<i>Blue-winged Warbler</i>	RC RS UCS							0.13	0.00	0.06
Yellow Warbler								0.00	0.13	0.06

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Northwest

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>Mean</i>
<i>Relative Abundance (birds per point)</i>										
Ovenbird								1.63	1.13	1.38
Common Yellowthroat								0.50	0.75	0.63
Scarlet Tanager								0.38	0.50	0.44
Eastern Towhee	RC							0.75	0.63	0.69
Field Sparrow	CBSD RC							0.00	0.13	0.06
Vesper Sparrow	RC							0.00	0.13	0.06
Song Sparrow	UCS							0.00	0.13	0.06
Northern Cardinal								0.63	0.13	0.38
Rose-breasted Grosbeak								0.13	0.00	0.06
Indigo Bunting								0.13	0.13	0.13
Red-winged Blackbird								0.00	0.13	0.06
Common Grackle								0.13	0.00	0.06
American Goldfinch	UCS							0.00	0.13	0.06
<i>Points Surveyed:</i>										
								8	8	
<i>Ave # Birds Per Point:</i>										
								11.75	12.13	11.94
<i>Species Richness:</i>										
								28	30	38
<i>Shannon Diversity:</i>										
								2.99	3.13	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix C—Forest Avian Ecological Integrity Assessment by Site

This appendix presents results of the Forest Avian Ecological Integrity Assessment for each forest site, combining data from 2006 through 2012. Assessments for parks with only one site are excluded from this appendix since they are included in the main report. Please refer to the Introduction for some important caveats pertaining to the assessment.

Appendix C. Forest Avian Ecological Integrity Assessment by Site (continued).

Acadia NP - 30 ACAD Schoodic

2006 to 2013

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	7%	Good
Resident	32%	Caution
Single Brooded	59%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	14%	Good
Ground Gleaner	9%	Good
High Canopy Forager	9%	Caution
Low Canopy Forager	32%	Good
Omnivore	23%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	34%	Caution
Forest-ground Nester	23%	Good
Interior Forest Obligate	48%	Good
Shrub Nester	18%	Caution

Acadia NP - 31 ACAD Giant Slide Trail

2006 to 2013

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	10%	Caution
Resident	41%	Sig Concern
Single Brooded	62%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	17%	Good
Ground Gleaner	10%	Good
High Canopy Forager	7%	Sig Concern
Low Canopy Forager	21%	Caution
Omnivore	28%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	41%	Good
Forest-ground Nester	17%	Caution
Interior Forest Obligate	52%	Good
Shrub Nester	17%	Good

Appendix C. Forest Avian Ecological Integrity Assessment by Site (continued).

Acadia NP - 32 ACAD Witch Hole Pond

2006 to 2013

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	5%	Good
Resident	26%	Good
Single Brooded	66%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	13%	Good
Ground Gleaner	8%	Caution
High Canopy Forager	13%	Good
Low Canopy Forager	21%	Caution
Omnivore	29%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	42%	Good
Forest-ground Nester	16%	Caution
Interior Forest Obligate	37%	Good
Shrub Nester	16%	Good

Acadia NP - 33 ACAD Seal Cove Center

2006 to 2013

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	9%	Good
Resident	42%	Sig Concern
Single Brooded	58%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	18%	Good
Ground Gleaner	9%	Good
High Canopy Forager	12%	Good
Low Canopy Forager	24%	Good
Omnivore	21%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	42%	Good
Forest-ground Nester	12%	Caution
Interior Forest Obligate	52%	Good
Shrub Nester	18%	Caution

Appendix C. Forest Avian Ecological Integrity Assessment by Site (continued).

Acadia NP - 34 ACAD Seal Cove East

2006 to 2013

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	7%	Good
Resident	35%	Caution
Single Brooded	50%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	13%	Good
Ground Gleaner	9%	Caution
High Canopy Forager	11%	Caution
Low Canopy Forager	24%	Good
Omnivore	33%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	35%	Caution
Forest-ground Nester	9%	Caution
Interior Forest Obligate	39%	Good
Shrub Nester	26%	Sig Concern

Acadia NP - 35 ACAD Seal Cove West

2006 to 2013

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	9%	Good
Resident	35%	Caution
Single Brooded	56%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	15%	Good
Ground Gleaner	12%	Good
High Canopy Forager	15%	Good
Low Canopy Forager	21%	Caution
Omnivore	26%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	44%	Good
Forest-ground Nester	15%	Caution
Interior Forest Obligate	50%	Good
Shrub Nester	15%	Good

Appendix C. Forest Avian Ecological Integrity Assessment by Site (continued).

Acadia NP - 36 ACAD Youngs Mtn

2006 to 2013

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	8%	Good
Resident	42%	Sig Concern
Single Brooded	65%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	23%	Good
Ground Gleaner	15%	Good
High Canopy Forager	12%	Caution
Low Canopy Forager	15%	Caution
Omnivore	12%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	42%	Good
Forest-ground Nester	12%	Caution
Interior Forest Obligate	50%	Good
Shrub Nester	12%	Good

Marsh-Billings-Rockefeller NHP - 10 MABI East

2006 to 2013

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	10%	Good
Resident	31%	Caution
Single Brooded	57%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	19%	Good
Ground Gleaner	10%	Good
High Canopy Forager	10%	Caution
Low Canopy Forager	17%	Caution
Omnivore	33%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	31%	Caution
Forest-ground Nester	14%	Caution
Interior Forest Obligate	43%	Good
Shrub Nester	19%	Caution

Appendix C. Forest Avian Ecological Integrity Assessment by Site (continued).

Marsh-Billings-Rockefeller NHP - 11 MABI Northwest

2006 to 2013

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	9%	Good
Resident	32%	Caution
Single Brooded	59%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	18%	Good
Ground Gleaner	11%	Good
High Canopy Forager	9%	Caution
Low Canopy Forager	18%	Caution
Omnivore	30%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	39%	Good
Forest-ground Nester	16%	Caution
Interior Forest Obligate	41%	Good
Shrub Nester	16%	Good

Marsh-Billings-Rockefeller NHP - 12 MABI South

2006 to 2013

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	8%	Good
Resident	28%	Caution
Single Brooded	60%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	16%	Good
Ground Gleaner	8%	Caution
High Canopy Forager	8%	Caution
Low Canopy Forager	22%	Caution
Omnivore	34%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	36%	Good
Forest-ground Nester	14%	Caution
Interior Forest Obligate	34%	Caution
Shrub Nester	20%	Caution

Appendix C. Forest Avian Ecological Integrity Assessment by Site (continued).

Minute Man NHP - 13 MIMA Hartwell Tavern

2006 to 2013

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	4%	Caution
Nest Predator / Brood Parasite	7%	Good
Resident	38%	Caution
Single Brooded	44%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	13%	Good
Ground Gleaner	7%	Caution
High Canopy Forager	4%	Sig Concern
Low Canopy Forager	20%	Caution
Omnivore	38%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	22%	Sig Concern
Forest-ground Nester	7%	Caution
Interior Forest Obligate	18%	Caution
Shrub Nester	31%	Sig Concern

Minute Man NHP - 14 MIMA Meriam's Corner

2006 to 2013

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	4%	Caution
Nest Predator / Brood Parasite	6%	Good
Resident	32%	Caution
Single Brooded	50%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	10%	Caution
Ground Gleaner	4%	Caution
High Canopy Forager	8%	Caution
Low Canopy Forager	18%	Caution
Omnivore	38%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	26%	Sig Concern
Forest-ground Nester	4%	Sig Concern
Interior Forest Obligate	14%	Caution
Shrub Nester	26%	Sig Concern

Appendix C. Forest Avian Ecological Integrity Assessment by Site (continued).

Minute Man NHP - 15 MIMA The Bluff

2006 to 2013

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	5%	Caution
Nest Predator / Brood Parasite	10%	Caution
Resident	43%	Sig Concern
Single Brooded	43%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	13%	Good
Ground Gleaner	5%	Caution
High Canopy Forager	8%	Caution
Low Canopy Forager	15%	Caution
Omnivore	43%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	30%	Caution
Forest-ground Nester	3%	Sig Concern
Interior Forest Obligate	13%	Caution
Shrub Nester	25%	Sig Concern

Morristown NHP - 16 MORR Mt. Kemble

2006 to 2013

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	8%	Good
Resident	33%	Caution
Single Brooded	48%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	13%	Good
Ground Gleaner	10%	Good
High Canopy Forager	8%	Caution
Low Canopy Forager	20%	Caution
Omnivore	40%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	25%	Sig Concern
Forest-ground Nester	15%	Caution
Interior Forest Obligate	28%	Caution
Shrub Nester	23%	Caution

Appendix C. Forest Avian Ecological Integrity Assessment by Site (continued).

Morristown NHP - 17 MORR Primrose Brook

2006 to 2013

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	9%	Good
Resident	32%	Caution
Single Brooded	50%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	12%	Good
Ground Gleaner	9%	Caution
High Canopy Forager	9%	Caution
Low Canopy Forager	18%	Caution
Omnivore	41%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	24%	Sig Concern
Forest-ground Nester	15%	Caution
Interior Forest Obligate	26%	Caution
Shrub Nester	24%	Caution

Morristown NHP - 18 MORR Soldier's Huts

2006 to 2013

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	9%	Good
Resident	28%	Caution
Single Brooded	59%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	13%	Good
Ground Gleaner	9%	Caution
High Canopy Forager	11%	Caution
Low Canopy Forager	22%	Caution
Omnivore	33%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	30%	Caution
Forest-ground Nester	17%	Caution
Interior Forest Obligate	37%	Good
Shrub Nester	26%	Sig Concern

Appendix C. Forest Avian Ecological Integrity Assessment by Site (continued).

Saratoga NHP - 23 SARA Middle Ravine

2006 to 2013

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	7%	Good
Resident	30%	Caution
Single Brooded	51%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	12%	Good
Ground Gleaner	9%	Good
High Canopy Forager	7%	Sig Concern
Low Canopy Forager	23%	Good
Omnivore	40%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	26%	Sig Concern
Forest-ground Nester	9%	Caution
Interior Forest Obligate	23%	Caution
Shrub Nester	23%	Caution

Saratoga NHP - 24 SARA Wilkinson Trail

2006 to 2013

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	6%	Good
Resident	29%	Caution
Single Brooded	49%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	14%	Good
Ground Gleaner	6%	Caution
High Canopy Forager	8%	Caution
Low Canopy Forager	20%	Caution
Omnivore	37%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	24%	Sig Concern
Forest-ground Nester	12%	Caution
Interior Forest Obligate	24%	Caution
Shrub Nester	27%	Sig Concern

Appendix C. Forest Avian Ecological Integrity Assessment by Site (continued).

Saratoga NHP - 25 SARA Bemis Heights

2006 to 2013

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	8%	Good
Resident	30%	Caution
Single Brooded	53%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	13%	Good
Ground Gleaner	5%	Caution
High Canopy Forager	8%	Caution
Low Canopy Forager	18%	Caution
Omnivore	43%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	25%	Sig Concern
Forest-ground Nester	15%	Caution
Interior Forest Obligate	20%	Caution
Shrub Nester	30%	Sig Concern

Saratoga NHP - 38 SARA Northwest

2006 to 2013

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	6%	Good
Resident	31%	Caution
Single Brooded	44%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	11%	Good
Ground Gleaner	6%	Caution
High Canopy Forager	6%	Sig Concern
Low Canopy Forager	19%	Caution
Omnivore	47%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	22%	Sig Concern
Forest-ground Nester	11%	Caution
Interior Forest Obligate	19%	Caution
Shrub Nester	28%	Sig Concern

Appendix D—Grassland Avian Ecological Integrity Assessment by Site

This appendix presents results of the Grassland Avian Ecological Integrity Assessment for each grassland site at SARA, combining data from 2006 through 2012. Please refer to the Introduction for some important caveats pertaining to the assessment and changes to the way that the assessment is calculated for this and future reports.

Saratoga NHP - Burgoyne's Headquarters 2006 to 2013

<i>Guild</i>	<i>Percentage</i>	<i>Rating</i>
PIF Grassland Obligate	50%	Caution
PIF Shrub-dependent	71%	Caution
Edge Generalist	68%	Caution
Exotic	0%	Good
Grassland Obligate	9%	Caution
Shrub-dependent	23%	Caution

Saratoga NHP - Freeman Farm 2006 to 2013

<i>Guild</i>	<i>Percentage</i>	<i>Rating</i>
PIF Grassland Obligate	50%	Caution
PIF Shrub-dependent	86%	Good
Edge Generalist	67%	Caution
Exotic	2%	Caution
Grassland Obligate	9%	Caution
Shrub-dependent	24%	Caution

Saratoga NHP - Neilson Farm 2006 to 2013

<i>Guild</i>	<i>Percentage</i>	<i>Rating</i>
PIF Grassland Obligate	63%	Caution
PIF Shrub-dependent	86%	Good
Edge Generalist	67%	Caution
Exotic	2%	Caution
Grassland Obligate	11%	Good
Shrub-dependent	22%	Caution

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